NCAP
NATIONAL CLINICAL AUDIT OF PSYCHOSIS

RC PSYCH
ROYAL COLLEGE OF PSYCHIATRISTS

National Clinical Audit of Psychosis

National report for the core audit

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British Psychological Society (BPS)
Care Quality Commission (CQC)
College of Mental Health Pharmacy (CMHP)
Healthcare Quality Improvement Partnership (HQIP)
Mind
NHS England
NHS Benchmarking
Prescribing Observatory for Mental Health (POMH-UK)
Public Health Department Wales
Rethink Mental Illness
Royal College of General Practitioners (RCGP)
Royal College of Nursing (RCN)

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Development of standards and recommendations

We would like to thank the members of our Steering Group for their contributions to the NCAP standards and recommendations for this audit.

A list of members of the Steering Group, together with the organisations they represent, can be found in Appendix C.

Support and input

We would like to express our thanks to the Healthcare Quality Improvement Partnership (HQIP) for their support and encouragement throughout, and to the staff in participating Trusts and Health Boards for their hard work and engagement in submitting data for this audit.

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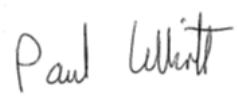
Foreword

People with psychosis often require intensive, long-term treatment and care from a multi-professional team and a range of service types. This means that the quality of care they receive is an indication of the overall quality of mental health services. Thus, this report is a valuable source of information about the quality of NHS mental health care across England and Wales. The fact that all Mental Health Trusts and Health Boards in England and Wales participated is a testament to the work of the audit team at the Royal College of Psychiatrists and the commitment of NHS staff towards assessing and improving quality of care.

Many Trusts in England cover large areas and have separate clinical teams for different geographical patches. It is therefore a real strength of this latest round of the audit that, for the first time, many of the individual Trust reports will highlight variation in quality across the different Clinical Commissioning Groups served by the organisation. This will allow individual Trusts to identify unwarranted variation within their organisations – an important step towards improving the overall quality of care that people receive.

While there is still a long way to go, it is pleasing to see improvements in the quality of physical health care for people with psychosis. This is vital if mental health services are to help people with psychosis lead healthier and longer lives. In contrast, low levels of referral and uptake of CBTp and family interventions show how much more needs to be done to ensure that people with psychosis receive NICE-recommended, evidence based psychological treatments. It is of particular concern that there has been no improvement with respect to the provision of information about medication to patients and their involvement in care decisions. This chimes with the Care Quality Commission's findings that too often patients are not active partners in their own care.

The results of this audit will help local services identify priorities for local quality improvement and will support the work of Care Quality Commission and other regulators in efforts to ensure that people with severe mental illness receive the safe and effective services they deserve.



Dr Paul Lelliott,
Deputy Chief Inspector of Hospitals,
Care Quality Commission

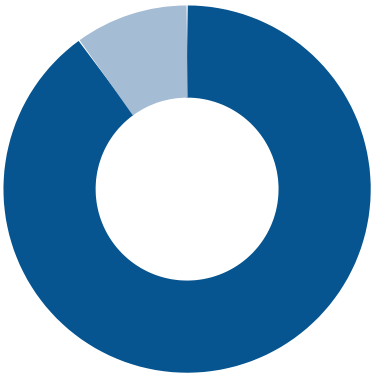
A SNAPSHOT OF THE MAIN FINDINGS

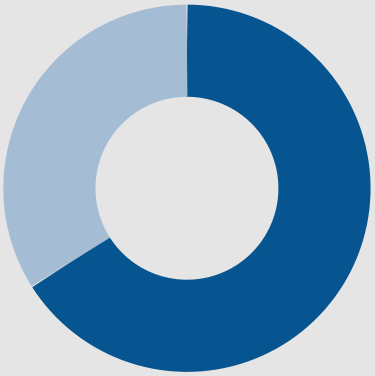
42%

Less than half of patients were screened for 5 cardiovascular risk factors

Medication was prescribed within BNF limits for almost all patients

90%



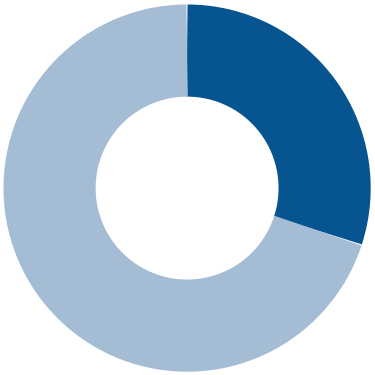


34%

Reasons for prescribing high-dose medication were NOT documented for 1 in 3 patients

30%

Less than a third of patients were given accessible information about their prescribed medication



Executive summary

This report presents the findings from the core audit of the National Clinical Audit of Psychosis (NCAP). NCAP was previously known as the National Audit of Schizophrenia (NAS) from which two reports were published: NAS1 in December 2012 and NAS2 in November 2014. NCAP is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcome Programme (NCAPOP), which is funded by NHS England and the Welsh Government.

Background

During the last 10 years, various guidelines and initiatives have been developed, aimed at improving the quality of care that people with psychotic disorders receive. The most important of these is the guideline published by the National Institute for Health and Care Excellence (NICE; CG178 *Psychosis and schizophrenia in adults: treatment and management*, 2014). Initiatives to improve the physical health of people with psychotic disorders include the Quality and Outcomes Framework (QOF), which provides financial incentives for primary care physicians, and the national Mental Health Commissioning for Quality and Innovation (CQUIN), which provides financial incentives for Trusts in England. In 2010, the Welsh Government introduced new legislation aimed at improving the quality of care planning, increasing access to independent mental health advocacy and providing more mental health support in primary care settings. In 2012, a programme was established to improve access to psychological therapies for people with severe mental illness (IAPT-SMI), with the aim of making Cognitive Therapy for Psychosis (CBTp) more available.

Audit standards

The audit has focused on four issues relating to the quality of care provided for people with psychotic disorders: management of physical health, prescribing practice, access to psychological therapies and outcomes. Twelve audit standards and two outcome measures were developed to address these issues.

Full details of the NCAP audit standards and outcome measures are provided on page 10 of this report.

Method

All English Mental Health Trusts and Welsh Health Boards collaborated in this audit (n=62 organisations). A random sample of patients was generated from a list of all those meeting the audit criteria within each organisation. An audit of practice form was completed for each patient. Data were collected regarding the care of 9,449 patients, an 88% return rate on expected submission.

Previous NAS audits only collected data relating to people with a diagnosis of schizophrenia or schizo-affective disorder living in the community. NCAP included people with a wider range of functional psychotic disorders (though specifically excludes affective psychoses and organic psychoses) and includes inpatients as well as community patients.

Main findings

The main results focus on those patients who were living in the community on the 'census date' for the audit and who had a diagnosis of either schizophrenia or schizo-affective disorder (the NCAP community sub-sample; n=7,773). The findings for this sub-sample are directly comparable to the findings from the two previous audits and are summarised in Tables 1 and 2.

In comparison with the findings from NAS1 and NAS2, the NCAP results show some improvements in monitoring of physical health and substantial improvements in the provision of interventions for identified physical health risk factors. However, overall assessment of risk for cardiovascular disease, with a tool such as Q-Risk, requires more attention. There were also improvements in prescribing practice for antipsychotic medications, with a small reduction in polypharmacy and an important reduction in the proportion of patients being prescribed antipsychotics at doses above those recommended in the British National Formulary (BNF). However, provision of written information, or other appropriate forms of information, to patients about their medication remains poor.

Provision of evidence based psychological therapies remains below the expectation of the NICE guideline (NICE CG178) that all patients should be offered these. Only 36% had been offered some form of CBT and only 26% had been offered CBTp. Only 12% of patients in contact with their families had been offered family intervention. Only one in ten patients in the audit were involved in work or education and less than half of those seeking work had been offered appropriate support to help them find a job.

The findings in relation to those patients who were inpatients (n=689) and those who had diagnoses other than schizophrenia or schizo-affective disorder (n=1,034) are summarised in Tables in the main body of the report (pages 61–66) and compared with performance against standards for the NCAP community sub-sample.

Conclusions

The audit has collected data about the care provided to a large, random sample of patients from all the main provider organisations in England and Wales. The findings show improvements in aspects of physical healthcare for these patients and in prescribing practice. The provision of information about medication to patients remains poor and the availability of psychological therapies remains low. More needs to be done to assist patients into employment.

Recommendations are presented on pages 4 to 6, following Tables 1 and 2 summarising the findings.

Comparison of findings with those from previous audits

Tables 1 and 2 provide a summary of key comparisons (for the NCAP community sub-sample with diagnoses of schizophrenia and schizo-affective disorder) between the findings in NCAP and the findings from the previous audits, NAS2 and NAS1. In these Tables the standards are listed in order by standard number. Full details of the NCAP standards are provided on page 10 of this report. Similar summary Tables for the sub-sample of inpatients (n=689) can be found on pages 62–63 (Tables 28 and 29) and for the sub-sample of patients with 'other' diagnoses on pages 65–66 (Tables 32 and 33).

Some of the percentages shown for NAS1 and NAS2 may differ slightly from those in the original reports as these have been recalculated to exclude those patients who were attending Early Intervention (EI) services. Patients attending EI services were not included in NCAP as they will be the subject of a further national audit commencing later in 2018.

In NAS1 and NAS2, body mass index (BMI) was used as the sole measure of information about weight. In NCAP, the audit of practice additionally asked about weight gain > 5 kg over a 3-month period. There were some instances where data for BMI were not supplied but where information regarding weight gain was available. This information was then used as evidence that 'monitoring' had occurred and was used to assess whether or not 'intervention' was required. This allowed equivalence with the 2017/2018 national Mental Health CQUIN, for which this audit had to supply the required data.

Table 1: Key comparisons between NCAP, NAS2 and NAS1 for the community patients sub-sample: standards 1 & 2

Standard/indicator	NCAP	NAS2	NAS1
		%	
Standard 1. Physical health monitoring			
Monitoring of all five CVD risk factors	42	34	27
Monitoring of smoking	86	89	87
Monitoring of BMI/weight	65	52	48
Monitoring of glucose control	59	57	50
Monitoring of lipids	57	58	48
Monitoring of blood pressure	66	62	57
Monitoring of alcohol consumption	87	70	69
Monitoring of substance misuse	86	89	84
Standard 2. Physical health intervention			
Intervention for smoking	79	59	57
Intervention for BMI ≥ 25 kg/m^2	78	70	73
Intervention for abnormal glucose control	75	34	26
Intervention for abnormal lipids	52	29	24
Intervention for elevated blood pressure	58	25	26
Intervention for harmful/hazardous use of alcohol	89	73	71
Intervention for substance misuse	83	72	73

Table 2: Key comparisons between NCAP, NAS2 and NAS1 for the community patients sub-sample: standards 3–12

Standard/indicator	NCAP	NAS2	NAS1
		%	
Standards 3 & 4. Provision of information about medication			
Provision of written (or other appropriate format) information about current antipsychotic drug	30	37	43
Record that patient was involved in the prescribing decision	65	55	62
Record of discussion of benefits and adverse effects	79	66	76
Standards 5 & 6. Prescribing			
Frequency of polypharmacy for those on non-clozapine drugs	10	13	11
Frequency of high dose prescribing	7.5	10	10
Rationale documented where high dose is prescribed	66	37	25
Standards 7 & 8. Poor response to medication (investigation and clozapine)			
Medication adherence has been investigated	75	67	86
Alcohol and substance misuse have been investigated	68	58	79
Patients not in remission and not on clozapine without an appropriate reason	53	24	41
Standard 9. Psychological therapies			
Patients offered CBTp	26	n/a	n/a
Patients offered some form of CBT	36	38	n/a
Patients in contact with their family offered family intervention	12	(18[a])	n/a
Standards 10 & 11. Care planning and crisis planning			
Each patient has a current care plan	93	95	n/a
Information in care plan about crisis contact	88	(74[b])	n/a
Standard 12. Assessment of the needs of carers			
Carer's needs assessed (for those with a carer)	55	n/a	n/a
Employment			
Patients involved in work or study related activity outside the home	11	(10[b])	n/a

a. NAS2 data are not fully comparable because they included patients not in contact with their families.
b. Assessed differently in NAS2 and not directly comparable.
n/a, no data available.

Recommendations

This audit has demonstrated improvements in several important aspects of care, including many highlighted as requiring improvement in our previous NAS1 (2012) and NAS2 (2014) reports. It is important that NHS England and Trusts in England, and NHS Wales and Welsh Health Boards, work to maintain and extend these improvements.

Our main recommendations therefore focus on aspects of care where either little change is evident or where there have been improvements in basic practice, but further steps forward are needed.

Where appropriate we quote recommendations from relevant NICE guidelines (using guideline number and paragraph number, e.g. NICE CG178, 1.3.6.5).

Assessment and intervention for risk of cardiovascular disease

This audit has demonstrated clear improvement in the monitoring of patients for key risk factors for the development of cardiovascular disease (CVD) and diabetes (e.g. BMI, blood lipids) and improvements in the delivery of an appropriate intervention for some of these when individual results require this (e.g. treatment for high blood pressure).

However, it is striking that little attention is being paid to making an overall assessment of the specific risk for CVD. The current NICE guideline for assessment of risk for CVD in the general population (NICE CG181, 1.1.8) advises that this should be done using the Q-Risk tool. The same approach should be applied for all people with psychotic disorders, particularly because evidence suggests they have an intrinsically greater risk for CVD and that this may be added to by weight gain and diabetes, often secondary to treatment with antipsychotic medications. Q-Risk is also recommended in the Lester Resource (Shiers et al, 2014) as part of the assessment of any requirement for lipid modification. In this audit only 4% of patients had a record of a Q-Risk2 score (see pages 33–34).

While Q-Risk has some limitations for younger people, and probably underestimates risk for CVD in people with psychosis, it is currently the most readily available and widely used tool for assessing CVD risk in the UK. A new version, Q-Risk3, is likely to become the standard version later in 2018. Q-Risk3 has amendments intended, in part, to make it more applicable to people with psychosis. It is possible that a specific 'CVD risk assessment tool' for people with severe mental illnesses, developed on a UK population, may become available within the next few years, but at present Q-Risk represents the best available practical approach.

RECOMMENDATION 1

Ensure that all people with psychosis:

- have at least an annual assessment of cardiovascular risk (using the current version of Q-Risk)
- receive appropriate interventions informed by the results of this assessment
- have the results of this assessment and the details of interventions offered recorded in their case record.

Psychological therapies and family interventions

This audit found no change in the proportion of patients who have been offered CBT (all types of CBT combined). In NCAP we have separated CBTp (cognitive behavioural therapy for psychosis – a specific form of CBT requiring specified training of the staff delivering it) from other, less specified, forms of CBT that have been available for many years. In NCAP, the sum of those offered CBTp *plus* those offered a less 'specified' form of CBT (36%) is similar to the proportion of patients offered CBT (not specifically defined) in NAS2 (38%). In NCAP, 26% were offered CBTp, the most appropriate form of CBT for people with a psychotic illness. In a national audit of Early

Intervention for Psychosis services (AEIP, 2016), only 41% of patients with a first episode of psychosis or suspected psychosis had been offered CBTp.

The proportions in both audits do not reflect guidance from NICE (NICE CG178, 1.4.4.1) in which it is recommended that all patients with psychosis should be offered CBTp.

Almost identical comments can be made regarding the offer of a family intervention. The proportion of patients offered such in NCAP (12%) is lower than in NAS2 (18%) and much lower than the 31% offered such in the audit of Early Intervention services. One problem here is that for older patients it can be difficult in practice to ascertain from examining clinical records whether such interventions were offered at an earlier stage in a person's illness.

However, for both CBTp and family interventions the audit findings from Trusts and Health Boards indicate that in many cases these therapies were either not available or were available but not offered. Both responses suggest a lack of availability of appropriately trained staff and/or a lack of awareness within some clinical teams that these should be offered.

RECOMMENDATION 2

Ensure that all people with psychosis are offered CBTp and family interventions, by:

- deploying sufficient numbers of trained staff who can deliver these interventions
- making sure that staff and clinical teams are aware of how and when to refer people for these treatments.

Provision of written information to patients

Trusts and Health Boards reported that in only 30% of cases did they know that a patient had been provided with written (or other appropriate) information regarding their antipsychotic medication. Yet 79% reported that the benefits and adverse effects of treatment had been discussed with the patient.

NICE guidance requires that patients are given information about their treatment as well as being involved in a discussion about it (NICE CG178, 1.3.5.1).

RECOMMENDATION 3

Ensure that all people with psychosis:

- are given written or online information about the antipsychotic medication they are prescribed
- are involved in the prescribing decision, including having a documented discussion about benefits and adverse effects of the medication.

Employment and training opportunities

This audit found that only 11% of patients were involved in some form of work or study-related activity outside the home. Of those patients who were unemployed and actively seeking work, only 46% had been offered some form of appropriate programme to help them with this. Of the total population included in the audit, 58% were regarded as being 'long-term sick or disabled and receiving benefits'' and a further 16% were 'not working or seeking work'. These figures suggest a lack of real commitment to address the issue of helping people towards employment or into appropriate training opportunities.

NICE guidance (NICE CG178, 1.5.8.1) requires Trusts and Health Boards to make active steps to support patients towards employment.

RECOMMENDATION 4

Ensure that all people with psychosis who are unable to attend mainstream education, training or work, are offered alternative educational or occupational activities according to their individual needs; and that interventions offered are documented in their care plan.

Annual Summary of Care

In an audit of this nature, the collection of data requires that the relevant information can be found relatively easily in the patients' case records. In most Trusts/Health Boards there is no regular, systematic collation of important information. For example, Trusts are often not able to say whether a patient has, at some point in their history, been considered for CBTp or whether this has been deemed unnecessary or inappropriate. For patients who are not in remission it is often not immediately clear if a trial of clozapine has been considered or perhaps failed in the past.

RECOMMENDATION 5

An Annual Summary of Care should be recorded for each patient in the digital care record. This should:

- include information on medication history, therapies offered and physical health monitoring/ interventions
- be updated annually
- be shared with the patient and their primary care team.

Use of data in conjunction with NHS Digital

NCAP, and previously NAS1 and NAS2, have demonstrated that there are certain key indicators of clinical

performance where there is a very wide range of performance across Trusts/Health Boards. It is also clear that considerable effort is involved in trying to collect and collate the data required to assess these indicators. Yet, much of this information is, or should be, routinely available within Trusts/Health Boards.

NHS systems, such as NHS Digital and NHS Wales Informatics Service (NWIS), informed by the experience of NCAP and similar audits, should develop systems to collect and collate selected information that would routinely allow Trusts, Health Boards and Commissioners to monitor how local services are performing. In England, this information should feed into the Mental Health Services Data Set using SNOMED codes. Collation of such information would be valuable to individual Trusts/Health Boards who could more rapidly identify areas where care was deficient – and then institute local audits to define such issues in more detail.

RECOMMENDATION 6

NHS Digital, NWIS, Commissioners, Trusts and Health Boards should work together to put in place key indicators for which data can easily be collected, perhaps using an Annual Summary of Care (see Recommendation 5, above). This work should be informed by the NCAP results and the experience of the NCAP team.

Introduction

Context for the audit

The National Clinical Audit of Psychosis (NCAP) is managed by the Royal College of Psychiatrists' College Centre for Quality Improvement (CCQI). NCAP was previously known as the National Audit of Schizophrenia (NAS) from which two reports were published: NAS1 in December 2012 and NAS2 in November 2014. NCAP was commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). As part of NCAPOP all Mental Health Trusts in England and Health Boards in Wales were expected to take part in this audit.

HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement in patient outcomes and, in particular, to increase the impact that clinical audit, outcome review programmes and registries have on healthcare quality in England and Wales. HQIP holds the contract to commission, manage and develop NCAPOP, comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations and crown dependencies (www.hqip.org.uk/national-programmes).

All 62 Trusts/Health Boards collaborated in NCAP (see Appendix A, page 74). A random sample of patients was generated from a list of all those meeting the audit criteria within each Trust/Health Board. An audit of practice form was completed for each patient. Previous NAS audits only collected data on people with a diagnosis of either schizophrenia or schizo-affective disorder living in the community. NCAP includes people with a wider range of functional psychotic disorders (though specifically excludes affective psychoses and organic psychoses) and inpatients as well as community patients. Surveys of patient and carer experiences, conducted for previous NAS audits, could not be included in NCAP. Further detail about methods can be found in the 'Methodology' section (pages 9–13).

Key issues for NCAP

This audit has focused on four issues relating to the quality of care provided to people with psychotic disorders: management of physical health, prescribing practice, access to psychological therapies and outcomes. These issues cover aspects of care that have been recognised as important in a variety of reports and publications (e.g. Royal College of Psychiatrists, 2010 & 2013; Department of Health, 2011).

An important stage in devising any audit of clinical care is the development of a set of audit standards against which that care can be assessed using, as far as possible, objective measures. For NCAP, as for the previous NAS audits, this process has been informed largely by the principal UK national guideline for the care of people with psychotic disorders: '*Psychosis and schizophrenia in adults: treatment and management*' (NICE CG178, 2014). The audit standards developed have also taken account of the following: (a) evidence of deficiencies in various aspects of care found in the previous NAS audits; (b) the concerns raised by the independent Schizophrenia Commission, established by the mental health charity Rethink Mental Illness (Schizophrenia Commission, 2012); and (c) evidence from the Prescribing Observatory for Mental Health (POMH-UK) programme (POMH-UK, 2016).

Background

During the last 10 years, various guidelines and initiatives have been developed with the aim of encouraging improvements in care of people with psychotic disorders.

The National Institute for Health and Care Excellence (NICE) has published many such guidelines, the most relevant of which are: CG178 (*Psychosis and schizophrenia in adults: treatment and management*, 2014); PH38 (*Type 2 diabetes: prevention in people at high risk*, 2012); CG181 (*Cardiovascular disease: risk assessment and reduction, including lipid modification*, 2014); CG189 (*Obesity:*

identification, assessment and management, 2014); QS80 (*Psychosis and schizophrenia in adults. NICE Quality Standard*, 2015). These documents are all available on the NICE website (www.nice.org.uk).

The British Association for Psychopharmacology (BAP) has published two guidelines: one specific to the use of medication in the treatment of schizophrenia (Barnes et al, 2011) and one reviewing possible approaches to the management of weight gain and metabolic problems (Cooper et al, 2016). The 'Lester Cardiometabolic Health Resource' (Shiers et al, 2014), first published in 2012 and subsequently updated, has been made widely available to clinical staff in England and Wales. This provides advice for clinicians on the monitoring and management of weight and metabolic issues on a simple A4 size chart.

Since 2006, the Quality and Outcomes Framework (QOF) has provided an incentive for primary care physicians to conduct an annual physical health review for people with severe mental illness. While there are uncertainties about the future of the QOF process it has been welcomed by mental health staff and patients. More recently, in 2014, national Mental Health CQUIN indicators have been introduced in England relating to the management of physical health issues in people with psychosis. This provided incentives to Trusts in England to improve the physical health care of these patients.

The Improving Access to Psychological Therapies (IAPT) programme was established by the Department of Health in 2008 to improve access to such therapies for people with anxiety and depressive disorders. In 2012, a parallel programme was set up to improve access to psychological therapies for people with severe mental illness (IAPT-SMI), through the development of demonstration sites and staff training programmes.

Given the above, it was appropriate to conduct this audit to discover whether important elements of care have improved since data were collected for the NAS1 audit in 2011. The Schizophrenia Commission Progress Report (Rethink, 2018), using evidence from a variety of sources, reports a mixed picture since 2013, in terms of progress across various aspects of attitudinal change and service development. NCAP uses pseudonymised patient level data to examine very specific areas in detail with data allowing comparisons to be made between all Mental Health Trusts and Health Boards across England and Wales.

Methodology

Audit development

The National Clinical Audit of Psychosis continues the work of the NAS, which examined care provided in the community by Trusts and Health Boards to people with a diagnosis of schizophrenia and schizo-affective disorder. The scope of NAS has been extended in this audit to include both inpatient and community care provided for people with a broader group of severe mental health problems. However, unlike in earlier rounds of the audit, we were not commissioned to undertake a parallel survey of patient and carer experience.

Figure 1 outlines the timetable for this audit.

Standards and outcome indicators

The audit standards and outcome indicators (Table 3) were developed by the NCAP team in collaboration with members of the steering group. The standards are based on the main recommendations in the NICE guideline (NICE CG178, 2014).

Development of the audit tool

The NCAP audit of practice form was developed to collect demographic information, information on physical health monitoring and interventions (where monitoring identified a need), antipsychotic prescribing practice, psychological therapies offered, care planning and employment. This information was to be gleaned largely from a patient's case records but additionally, where appropriate, from consultant psychiatrists.

The audit tool was designed to collect similar data items to those of NAS, so that comparisons could be made with previous iterations of the audit to determine whether there have been changes in the care provided for people with a diagnosis of schizophrenia or schizo-affective disorder. The content of some questions regarding physical health was expanded, compared with those in NAS2. This allowed the data to be used for the 2017/2018 national Mental Health CQUIN, upon which some aspects of Trust funding depend.

This audit tool can be viewed and downloaded from the NCAP website at: www.rcpsych.ac.uk/NCAP.

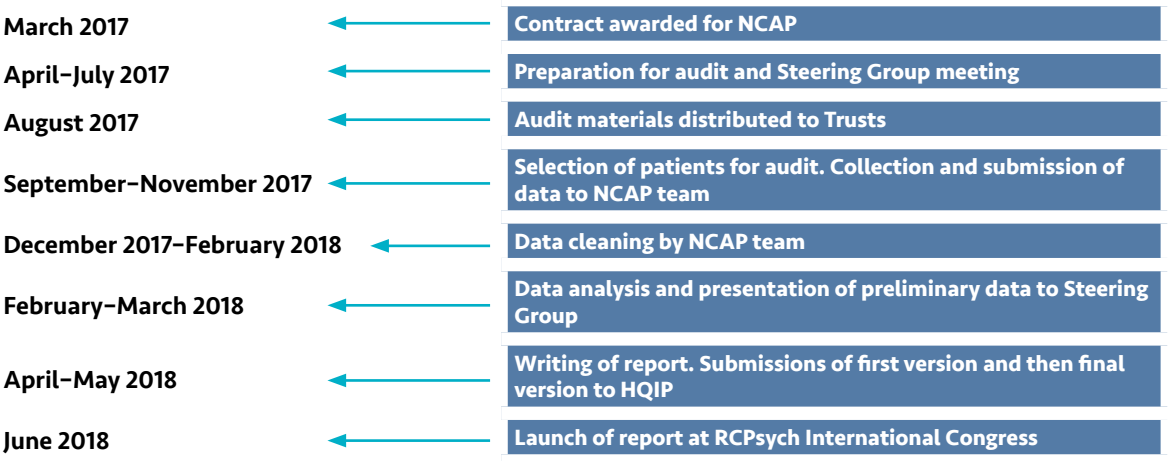


Figure 1: Timetable of the National Clinical Audit of Psychosis (NCAP) core audit.

Table 3: NCAP standards and outcome indicators

Standards	
S1	The following physical health indicators have been monitored within the past 12 months: i. use of tobacco; ii. BMI; iii. measure of glucose control; iv. lipids; v. blood pressure; vi. use of alcohol; vii. substance misuse; viii. history of cardiovascular disease, diabetes, hypertension or hyperlipidaemia in members of the service user's family.
S2	When monitoring within the past 12 months has indicated a need for intervention, the following have been offered to the service user or the treating clinician has made a referral for the service user to receive: i. help with smoking cessation; ii. advice about diet and exercise, aimed at helping the person to achieve and/or maintain a healthy BMI iii. treatment for diabetes; iv. treatment for hypertension; v. treatment for dyslipidaemia; vi. help with reducing alcohol consumption; vii. help with reducing substance misuse.
S3	The service user has been provided with evidence based, written information (or an appropriate alternative), in an accessible format, about the antipsychotic drug that they are currently prescribed.
S4	The service user was involved in deciding which antipsychotic was to be prescribed, after discussion of the benefits and potential side-effects.
S5	The service user is currently only prescribed a single antipsychotic drug (unless they are in a short period of overlap while changing medication). If receiving more than one antipsychotic, a rationale for this has been documented.
S6	The current total daily dose of antipsychotic medication does not exceed the upper limit of the dose range recommended by the BNF. If it does, the rationale for this has been documented.
S7	If current response to treatment is inadequate: i. medication adherence has been investigated and documented; ii. the potential impact of alcohol or substance misuse on response has been investigated and documented.
S8	If the patient is currently not in remission and has received trials of two (or more) different antipsychotic drugs, then there should be evidence that a treatment trial of clozapine has been considered and/or given. If, in these circumstances, clozapine is not being prescribed a rationale for this should have been documented at an appropriate place in the patient's records.
S9	i. CBTp has been offered to all service users; ii. Family intervention has been offered to all service users who are in close contact with their families.
S10	Each service user has a current care plan.
S11	There is evidence that each service user has been given information about how to contact services if in crisis.
S12	All carers have their needs assessed.
Outcome indicators	
I.1	The proportion of people who are employed or involved in voluntary work or education.
I.2	A HoNOS has been completed within the past 12 months.

Identification of the case sample

Organisations selected one of two sampling options; **either** identification of patients centrally **or** identification through the mental health teams.

Sample numbers

The minimum sample number for all Trusts and Health Boards was 100 patients. For Trusts in England, the sample number varied according to the number of Clinical Commissioning Groups (CCGs) covered, with the aim of collecting 50 patients per CCG. For example:

- Trust covering 1 CCG: 100 patients
- Trust covering 2 CCGs: 100 patients
- Trust covering 3 CCGs: 150 patients.

For Trusts covering six or more CCGs, the number of patients was capped at 300. This increase in numbers of requested audited cases was done at the request of Trusts after the second round of NAS, to enable some within-Trust comparisons.

Inclusion and exclusion criteria

Patients were eligible for inclusion in NCAP if they met the following criteria:

- Adult 16 years and older (no upper age limit)
- Under the care of adult services in the community or as inpatients
- Current ICD-10 diagnosis of one of the following psychoses:
  - F10–19/xx.5 psychotic disorder secondary to alcohol or substance abuse
  - F20 schizophrenia
  - F22/F24 persistent delusional disorders/induced delusional disorder
  - F25 schizo-affective disorder
  - F28/29 other non-organic/unspecified psychotic disorders
- ICD-10 diagnosis made before the age of 60 years and made 12 months or longer before to the census date (1 July 2017)
- Had been under the care of the Trust/Health Board for at least 12 months at the census date (1 July 2017)

Patients were excluded from NCAP if they met any of the following criteria:

- CAMHS patient or Early Intervention in Psychosis Team patient
- Current ICD-10 diagnosis of one of the following psychoses:
  - Schizotypal disorder
  - Acute and transient psychoses
  - Affective psychoses
  - Organic psychoses

Participating Trusts and Health Boards

Eligibility

All NHS Mental Health Trusts in England and Health Boards in Wales were expected to participate if they provided care or treatment to adults with a diagnosis of one of the eligible psychotic disorders either in the community or as inpatients.

Services submitting data

All 62 Trusts/Health Boards identified by the NCAP team as eligible to participate at the time of data collection submitted data. A list of participating organisations can be found in Appendix A, page 74, along with the unique code which identifies each organisation in the relevant figures within this report.

An individualised Trust/Health Board report, will be prepared for each organisation and sent to them ahead of the Quality Improvement (QI) workshop for their region. Should there be sufficient data to provide a further breakdown of analyses by CCG, this will be included in these local reports.

Process of the audit

Data collection

NCAP audit lead packs

Each participating Trust/Health Board was asked to identify a person from their organsiation to act as NCAP lead for the audit and to receive a comprehensive pack of materials to facilitate preparation for and implementation of the audit. A flow diagram of the audit process can be found in Appendix D, page 79.

Case note audit of practice

Audit leads were asked to arrange for completion of one audit of practice form for each patient included in the randomly selected sample for their Trust or Health

Board. Data were submitted directly to the NCAP team through an online version of the audit of practice form.

Response rates

We received 9,672 returns for the audit of practice, of which, after data cleaning, 9,449 were used in the analysis (88% of the numbers expected). Data on 223 patients (from 40 Trusts) were excluded. Of these exclusions, 169 were duplicate entries, 41 were under the care of Early Intervention in Psychosis teams, 11 were not being treated by secondary care services at the time of the audit and two had an ineligible diagnosis. For 102 of the duplicate cases removed (from 13 Trusts), removal did not reduce the total return for the respective Trusts below their expected numbers of cases. Only four of the Trusts whose final return was less than 100% of their expected sample lost more than 5% of their cases. The response rates for each participating Trust/Health Board can be found in Appendix B, page 76.

Data handling and analysis

Data entry and analysis

All data were entered using Formic Fusion Survey Software via secure webpages. Data were extracted to IBM SPSS Statistics 21 and analysed using IBM SPSS Statistics 21 or Microsoft Excel 2016. The statistical techniques used in IBM SPSS Statistics 21 to analyse data were descriptive statistics, frequencies and cross tabulations.

Service user reference group

Rethink Mental Illness, partner organisation to NCAP, recruited and co-facilitated a service user reference group along with Angela Etherington, service user advisor to NCAP. The group reviewed the initial analyses of the data to see if these reflected their experience of care.

The audit standards chosen appeared to reflect concerns about mental health care that were raised by the group. Many of the comments made regarding the audit findings are reflected in issues raised as concerns in this report. Issues particularly emphasised by the group were lack of awareness about physical health risk factors, a strong feeling that clinical staff needed to spend more time explaining medication choices, a lack of awareness of CBTp and concerns about the low numbers seeking work. The group members were drawn from different regions and reported some variation in concerns across regions.

Data cleaning

Data cleaning was carried out between December 2017 and February 2018. The NCAP team checked that the sampling criteria were followed correctly and checked for duplicate cases, missing data and unexpected values. Cases that were removed are described under 'Response rates', above. Data that appeared to be anomalous (e.g. very unusual doses of an antipsychotic drug or biochemical results far outside the normal range) were followed up by data queries asking audit staff in Trusts/Health Boards to check if the correct data had been submitted.

One extreme blood pressure record, two extreme HbA_{1c} records and four extreme blood lipid records were excluded from the analyses because they were very far outside the normal ranges for these measures. No response was received to data queries regarding these data. The patients concerned were still regarded as having had monitoring carried out and no other data for these patients were excluded. For another patient, the weight was provided but it appeared that BMI had not been recorded. The Trust provided us with the patient's height and the NCAP team calculated the BMI. This was then included for analysis to allow the NCAP team to assess any need for intervention for this patient.

Outliers

Organisations were identified as potential outliers for a particular standard if their performance was more than two standard deviations (SD) outside the average performance of all Trusts/Health Boards for that standard. In concert with guidance from HQIP, analyses to identify outliers were only to be conducted in relation to standards where poor performance may be a fairly immediate threat to a patient's well-being. The standards chosen were agreed with the Steering Group.

The detection and management of outliers was based on guidance supplied by HQIP and the Department of Health: http://www.hqip.org.uk/resources/detection-and-management-outliers-national-clinical-audits/

Limitations of the methodology and data

Limitations

- Data returns were not evenly spread across Trusts and Health Boards.
- Data analysis is meaningful for those Trusts/Health Boards which have a case note audit of practice sample size of at least 73 after data cleaning.
- The results are a 'snapshot' reflecting the performance of a Trust/ Health Board at the time when the data were collected. Though comparisons are made with the previous audits (NAS1 and NAS2), these are on different samples of patients – the audits do not reflect the same patients followed over time.

Caveats

- The sample only included patients who had been under the care of the Trust/Health Board for 12 months or more.
- The sample does not include patients with a diagnosis of psychosis who are solely under the care of primary care services.
- Physical health data were collected for current or most recent measures. Therefore, because of the lack of longitudinal data, caution must be used when drawing inferences between cause and effect.

Throughout the report several comments and caveats regarding the data for specific tables and figures are stated in bulleted points below the relevant Table or Figure.

Quality assurance

To assure data quality, four Trusts and Health Boards were randomly selected for a visit by members of the NCAP team after data collection and cleaning so that the data could be verified on a sample of their dataset. Further information about this process can be found in Appendix G, page 86.

Analyses and description of the audit findings

Analysis of the audit data

The complete NCAP audit sample (n=9,449) is dominated by the sub-sample of patients with diagnoses of schizophrenia and schizo-affective disorder who are living in the community (n=7,773). Hence, the findings relating to this sub-sample make up the main part of the results shown in the following sections of this report. The findings from this NCAP community sub-sample can also be compared with those from the previous audits, NAS1 and NAS2, for which patients with the same diagnoses, living in the community, were selected. NCAP did not include patients attending Early Intervention (EI) teams but these were included in NAS1 and NAS2. For the purpose of comparison, the NAS1 and NAS2 data have been re-analysed with EI team patients excluded.

Thus, the main sections of the report, describing the findings in relation to each audit standard, are describing the findings for the NCAP community patients sub-sample. For the other sub-samples (described in their own sections of this report), comparisons of quality of care are made against the NCAP community patient sub-sample findings.

To summarise, the data collected were analysed in three main groups:

1. **NCAP Community Patients with diagnoses of schizophrenia or schizo-affective disorder** (n=7,773): This constitutes the main analysis presented and most of the findings are presented using Figures (bar charts) showing the findings for each individual Trust/Health Board, as well as the overall sub-sample mean. Where sufficient similarity allows, the overall means from the previous audits, NAS1 and NAS2, are given in the text and summary Tables. For this sub-sample the findings are presented in the order of the audit standards.
2. **NCAP Inpatients:** This sub-sample (n=689) has been analysed separately and the main findings compared with those from the NCAP community sub-sample. The number of inpatients is too small to allow meaningful comparisons between Trusts/Health Boards, so the findings are presented as Tables showing overall averages in comparison with those from the NCAP community sub-sample (individual Trust/Health Board reports will show more detail where possible).
3. **NCAP 'other' diagnoses**: The data from those patients with diagnoses other than schizophrenia or schizo-affective disorder have been analysed separately (n=1,034). The findings are presented as overall averages in comparison with those from the NCAP community sub-sample. The number of patients in 'other diagnoses' is too small to allow meaningful comparisons between Trusts/Health Boards, so the findings are presented as Tables showing overall averages in comparison with those from the NCAP community sub-sample (individual Trust/Health Board reports will show more detail where possible).

Layout of the sections describing the audit findings

The findings are presented as follows.

Demography of the audit sample, including the NCAP community sub-sample

Findings for the NCAP community patients sub-sample

- Standard 1
- Standard 2
- Standards 3–6
- Standards 7 and 8

- Standard 9
- Standards 10 and 11
- Standard 12
- Outcome indicators

Sub-sample of inpatients

Sub-sample with other diagnoses

Care Programme Approach and Community Treatment Orders

The guidance below may be helpful when reading the findings:

- The term 'Trust' has been used throughout to refer to both English NHS Trusts and Welsh Health Boards.
- For clarity of presentation, most percentages in the text, data Tables and Figures are rounded to the nearest integer, without decimal places. Percentages that are less than 1% are rounded to one decimal place. Thus, the total percentages for some Tables or Figures may add up to 99% or 101%.
- Most Figures and Tables are accompanied by the number of patients used to generate the analysis shown. Occasionally, where a very specific sub-group of patients is involved, this is described in the text.
- This audit is referred to as NCAP. The first round of audit, published in 2012, is referred to as NAS1 and the second round, published in 2014, is referred to as NAS2.
- A glossary of terms is available from page 80.
- Much of the information is presented as Figures made up of bar charts, where each Trust is represented by a vertical bar. These bars are identified by a Trust code (see Appendix A, page 74, for the corresponding Trust names) and are divided into coloured sections according to the 'key' underneath the Figure. The percentages shown on the vertical axis indicate the percentage of patients in each Trust who met each item described in the 'key'. In most of these Figures the better performing Trusts are on the left and worse performing on the right.
- A bar labelled 'TNS' (total national sample) will be found in each bar chart figure. This denotes the overall mean values for the sample/sub-sample concerned. The TNS bar will have a different colour scheme (usually red/green/and one other colour) to the individual 'Trust' bars to enable easy visualisation. These mean values represent an average of current practice and should be judged against what may be considered as acceptable practice.

Demography of the audit sample

The audit set out to collect data on a randomly selected population of people, from each of the 62 Trusts/Health Boards, with diagnoses of one of the main forms of functional psychosis, excluding affective psychoses. All 62 Trusts submitted data. Initially n=9,672 returns were received, which represented a return of 90% of the numbers expected following the selection of an appropriate random sample from the eligible population provided by each Trust.

Following data cleaning, n=9,449 records were regarded as suitable for further analysis (the reasons for exclusion of some cases are detailed under 'Response rates', page 12). This represented an average of an 88% return per Trust against the numbers expected (it was also 88% for NAS2). Appendix B, page 76, shows the number of returns for each Trust.

Demography of the complete audit sample (n=9,449)

Tables 4, 5 and 6 show the demographic characteristics for the complete NCAP audit sample. Table 4 shows that 66% of the population was male, with a mean age of 46 years. The age range was from 18 to 90 years. Patients with schizophrenia made up 72% of the sample. Table 5 shows that 82% of the population was aged over 35 years. Only n=1,839 (19%) had their diagnosis made within the previous three years (note: Early Intervention teams were not included in this audit). Thus, the sample is predominantly of older patients with well-established diagnoses.

Table 6 shows the ethnic profile of the audit population. The distribution by gender is similar for each ethnic group except for the Asian/Asian British and the Chinese/Other groups where the proportion of females is higher. Comparison with data describing the ethnic

Table 4: Numbers of patients in the complete NCAP sample by diagnosis (ICD-10), showing age and gender (n=9,449)

Diagnosis (ICD-10 code)	n (% in each diagnostic group)	Mean age (years)	Male n (% for each diagnosis)	Female n (% for each diagnosis)
Complete sample	9,449*	46	6,207 (66)	3,237 (34)
Schizophrenia (F20)	6,810 (72)**	46	4,826 (71)	1,983 (29)
Schizo-affective disorder (F25)	1,605 (17)***	47	788 (49)	814 (51)
Unspecified non-organic psychosis (F28/29)	542 (6)****	43	296 (55)	245 (45)
Persistent substance induced psychosis (F10-19/xx.5)	257 (3)	42	183 (71)	74 (29)
Persistent delusional disorder (F22)	228 (2)	53	110 (48)	118 (52)
Induced delusional disorder (F24)	7 (0.1)	53	4 (57)	3 (43)

*5 cases reported as gender undefined; **1 patient recorded as gender undefined; ***3 cases reported as gender undefined; ****1 case reported as gender undefined

Table 5: Numbers by broad age bands (n=9,449)

Age bands in years (inclusive)	n (%) in each age band
16–18 yrs	3 (<0.1)
19–25 yrs	241 (3)
26–35 yrs	1,556 (16)
36–45 yrs	2,616 (28)
46–55 yrs	2,982 (32)
56–65 yrs	1,682 (18)
> 65 yrs	369 (4)

Table 6: Profile of the complete NCAP sample by ethnic group (n=9,449)*

	Gender n (% of the complete NCAP sample)			
Ethnic group	Male	Female	Other/undefined	Mean age (years)
White	4,906 (52)	2,456 (26)	5 (<0.1%)	47
Black or Black British	544 (6)	309 (3)	–	45
Asian or Asian British	443 (5)	287 (3)	–	43
Mixed	156 (2)	79 (1)	–	42
Chinese or other	86 (1)	62 (1)	–	45
Not stated/not documented/refused	72 (1)	44 (0.5)	–	47

Table 7: Ethnic profile of the NCAP sample compared to the overall population of England & Wales (age 16+ years; 2011 census)

Ethnic group	Percentage in NCAP population	Percentage in England & Wales population
White	78	88
Black or Black British	9	3
Asian or Asian British	8	7
Mixed	2	1
Chinese or other	2	1
Not stated/not documented	1	–

Table 8: Clinical teams caring for the patients – complete NCAP sample (n=9,449)

Clinical team	n (%)
Currently an inpatient	650 (7)
Forensic inpatient	39 (0.4)
Community Mental Health Team	8,036 (85)
Assertive Outreach Team	365 (4)
Forensic Team	88 (1)
Leaning Disability Team	106 (1)
Crisis Resolution/Home Treatment Team	58 (0.6)
Out-patient clinic only	51 (0.5)
Elderly Care Team	14 (0.1)
Other type of clinical team	42 (0.4)

mix of the England & Wales population (age 16+ years) in the 2011 census (Table 7), suggests an over-representation of patients from Black or Black British backgrounds.

Table 8 shows that most patients were under the care of a Community Mental Health Team (CMHT). While many Trusts made the allocation of team as 'CMHT' (in Question 1a of the audit of practice form) there were a considerable number of responses from Trusts indicating 'Other clinical team' and then specifying a specific team name/descriptor that often appeared to be unique to that Trust. Where possible, further information was sought, which resulted in most of these 'teams' being redesignated as CMHTs.

Demography of the sub-sample of community patients with diagnoses of schizophrenia or schizo-affective disorder (n=7,773)

The main sub-sample includes only patients living in the community with a diagnosis of either schizophrenia or schizo-affective disorder. Table 9 shows the mean age and gender distribution of these patients, which is largely identical to that of the complete audit sample (Table 4). The age range is from 18 to 90 years. Table 10 shows the ethnic profile of this sub-sample, which is again almost identical to that of the complete NCAP audit sample (Table 6).

Table 11 shows an almost identical profile of the teams caring for these patients to that seen in the complete audit sample (Table 8). Since the NAS2 audit, there has been a marked decline in the proportion reported as being cared for by Assertive Outreach teams: 4% in NCAP compared with 13% in NAS2 (the NAS2 data have been re-calculated to exclude patients attending EI teams, as these were not included in NCAP). This change may reflect the fact that studies of assertive community treatment in the UK have generally not found advantage over standard approaches to providing care (e.g. Killaspy et al, 2009). This may have resulted in some Trusts moving away from provision of this type of team.

Table 9: Numbers of patients in the NCAP community sub-sample by diagnosis (ICD-10), showing age and gender (n=7,773)

Diagnosis (ICD-10 code)	Number (% in each diagnostic group)	Mean age (years)	Male (% for each diagnosis)	Female (% for each diagnosis)
Total sub-group sample	7,773*	47	5,139	2,631
Schizophrenia (F20)	6,314 (81)	47	4,426 (70)	1,888 (30)
Schizo-affective disorder (F25)	1,459 (19)*	48	713 (49)	743 (51)
*3 patients recorded as gender undefined.				

Table 10: Profile of the NCAP community sub-sample by ethnic group (n=7,773)

	Gender n (% of the NCAP community sub-sample)		
Ethnic group	Male	Female	Other/undefined
White	4,060 (52)	1,982 (25)	3 (<0.1)
Black or Black British	463 (6)	260 (3)	–
Asian or Asian British	361 (5)	243 (3)	–
Mixed	127 (2)	65 (0.8)	–
Chinese or other	68 (0.9)	47 (0.6)	–
Not stated/not documented/refused	60 (0.8)	34 (0.4)	–

Table 11: Clinical teams caring for the patients – NCAP community sub-sample (n=7,773)

Clinical team	n (%)
Community Mental Health Team	7,128 (92)
Assertive Outreach Team	342 (4)
Forensic Team	86 (1)
Leaning Disability Team	82 (1)
Crisis Resolution/Home Treatment Team	50 (0.6)
Out-patient clinic only	41 (0.5)
Elderly Care Team	11 (0.1)
Other type of clinical team	33 (0.4)

Findings NCAP community sub-sample

In order of the audit standards

STANDARD 1

Monitoring of physical health

People with a diagnosis of schizophrenia have poor physical health, increased rates of CVD and type 2 diabetes and premature mortality compared with the general population. Cigarette smoking and antipsychotic medication-induced weight gain are important contributing factors for these problems. Adequate monitoring of risk factors for diabetes and CVD is an essential step towards deciding on interventions for these risks.

Monitoring for physical health risk factors is recommended by NICE both in the main psychosis and schizophrenia guideline (NICE CG178, 1.1.3) and in the Quality Standards guideline (NICE QS80, Quality Standard 6). The previous NAS1 and NAS2 audits both revealed deficiencies in monitoring.

Standard 1

The following physical health indicators have been monitored within the past 12 months:

- Use of tobacco
- BMI
- Measure of glucose control
- Lipids
- Blood pressure
- Use of alcohol
- Substance misuse
- History of cardiovascular disease, diabetes, hypertension or hyperlipidaemia in members of the patient's family.

The data are described in the following order:

1. Individual risk factors: cigarette smoking, BMI, glucose control, blood lipids, blood pressure, alcohol consumption, substance misuse, recording of relevant family medical history.
2. Monitoring of patients with a known relevant medical history.
3. Analysis of how comprehensive the assessment is.
4. Comparison of the results from NCAP with those from NAS1 and NAS2.

Figure 2 shows the proportion of patients who were monitored for each risk factor in the previous 12 months.

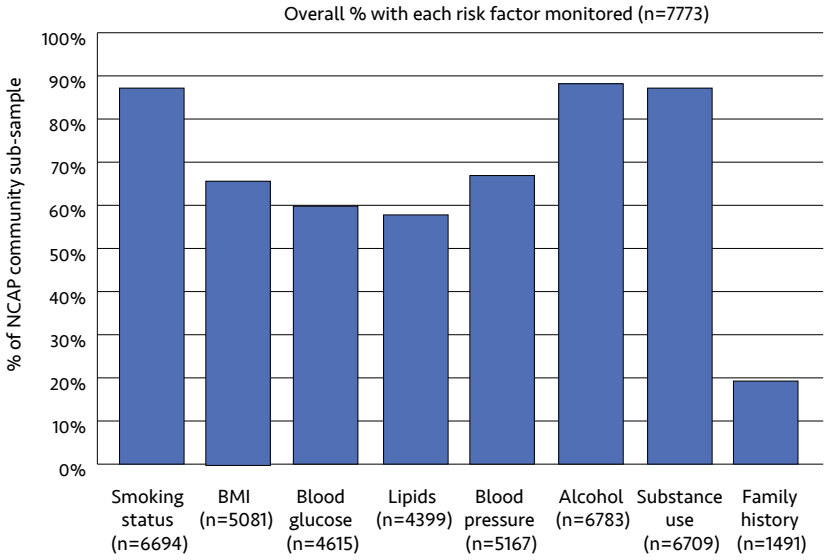


Figure 2: Proportion of patients with each individual risk factor monitored in the past 12 months (n=7,773)

Monitoring of individual risk factors

Monitoring of cigarette smoking

Figure 3 shows an overall average of 86% for recording smoking status in the previous 12 months. The range across Trusts was from 63% to 100%. Only n=130 (2%) of patients refused to provide information.

Current smokers made up 49% of the NCAP community sub-sample. An average of 25 cigarettes per day were smoked by the 1,927 patients for whom this information was returned.

Monitoring of BMI/weight

Figure 4 shows an overall average of 65% for recording BMI at least once in the previous 12 months. There is a wide range across Trusts, from 19% to 94%. In 13 Trusts less than half of patients had their BMI recorded.

Five percent (n=422) of patients refused monitoring. Patients who were pregnant (n=3) were included with those labelled as 'screening refused'.

Monitoring of blood glucose control

Figure 5 shows an overall average of 59% for monitoring glucose control at least once in the previous 12 months, using at least one of: fasting plasma glucose (FPG), random plasma glucose (RPG) or glycated haemoglobin (HbA_{1c}). Figure 5 shows very widely varying performance across Trusts from 7% to 90%. In 17 Trusts less than half of patients had a record of any measure of glucose control. This is a disappointing finding given the increased prevalence of diabetes among this group of patients.

Seven percent (n=548) of patients refused monitoring. Patients who were pregnant (n=1) were included with those labelled as 'screening refused'.

Monitoring of blood lipids and overall cardiovascular risk

Evidence that blood lipids had been monitored required the recording of one of: total cholesterol (TC), non-HDL cholesterol (nHDL) or a Q-Risk score. While Q-Risk is not a direct measure of blood lipids it requires there to have been a measure of these for its completion and is an important determinant of the need for intervention.

Figure 6 shows an overall average of 57% for monitoring of lipids at least once in the previous 12 months. There is very wide variation across Trusts, from 6% to 90%. In 21 Trusts less than half of patients had an appropriate measure recorded. Though Q-Risk is the NICE recommended tool for assessment of cardiovascular risk in the general population (NICE CG181, 1.1.8) it appears to be very underused by mental health teams. Only 3% (n=253) of this NCAP community sub-sample and only 4% (n=356) of the complete NCAP audit sample had a Q-Risk score recorded (see further discussion under Standard 2 on pages 33–34).

Seven percent (n=533) of patients refused monitoring.

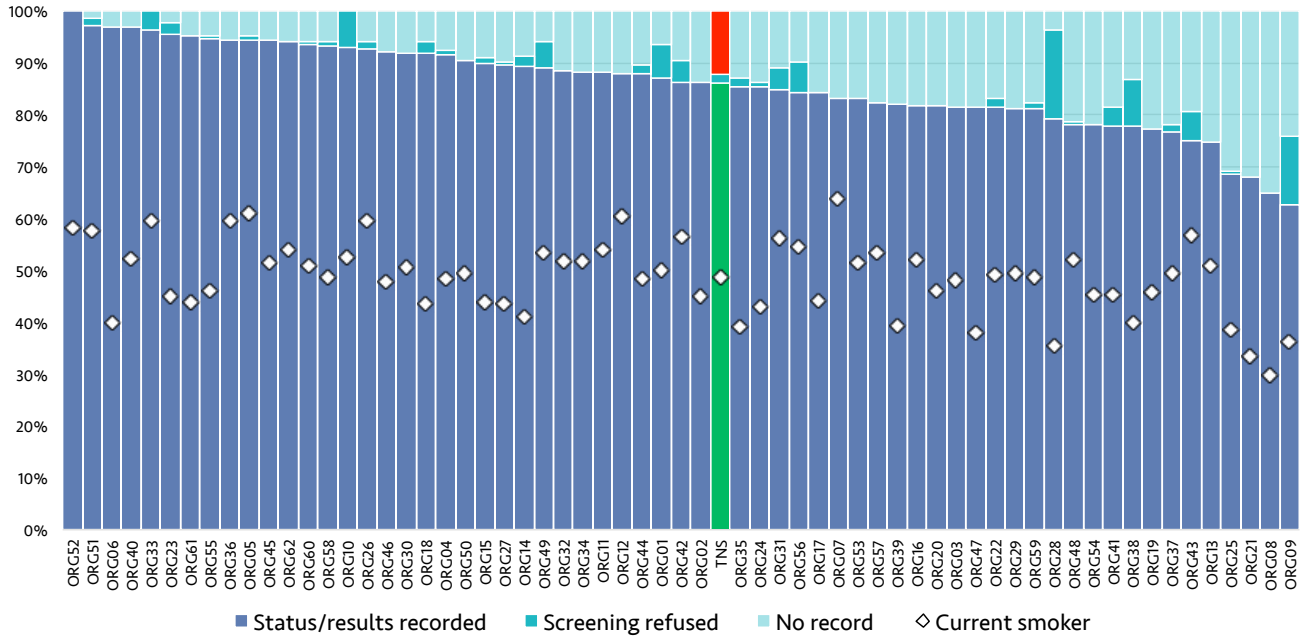


Figure 3: Monitoring of cigarette smoking across Trusts in the past 12 months (n=7,773)

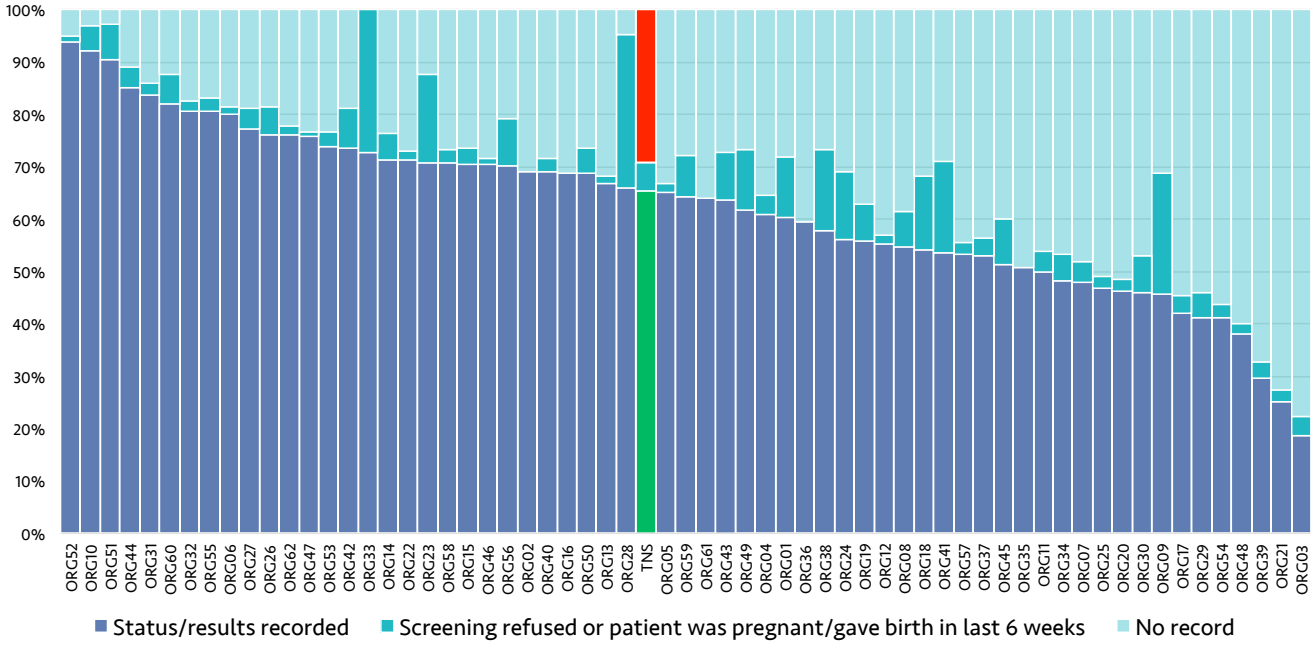


Figure 4: Monitoring of BMI/weight across Trusts in the past 12 months (n=7,773)

In NAS1 and NAS2, BMI was used as the sole measure of information about weight. In NCAP, the audit of practice additionally asked about weight gain > 5 kg over a 3-month period (Question 28 in the audit of practice form). There were some instances where data for BMI were not supplied, but where information regarding weight change was supplied. This information was then used as evidence that 'monitoring' had occurred and was also added to the assessment of whether or not 'intervention' was required. This allowed equivalence with the 2017/2018 national Mental Health CQUIN, for which this audit had to supply the required data.

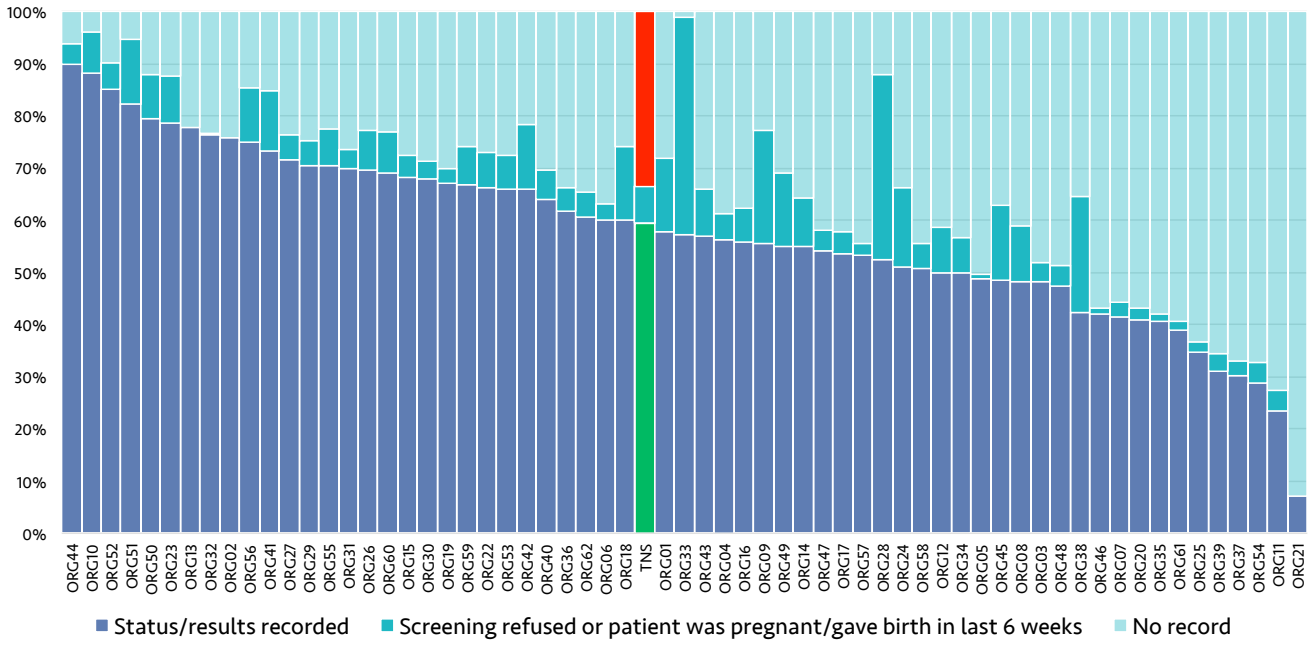


Figure 5: Monitoring of blood glucose control (FPG or RPG or HbA_{1c}) across Trusts in the past 12 months (n=7,773)

Monitoring of blood pressure

Figure 7 shows an overall average of 66% for monitoring blood pressure at least once in the previous 12 months. Variation between Trusts was from 29% to 93% and in 12 Trusts less than half of patients had a record of blood pressure. Six percent (n=427) of patients refused monitoring.

Monitoring of alcohol consumption

Figure 8 shows an overall average of 87% for monitoring alcohol consumption at least once in the previous 12 months. Variation across Trusts was from 57% to 99%. Two percent (n=148) of patients refused to provide information.

Monitoring of substance misuse

Figure 9 shows an overall average of 86% for monitoring substance misuse at least once in the previous 12 months. Variation across Trusts was from 56% to 99%. Two percent (n=166) of patients refused to provide information.

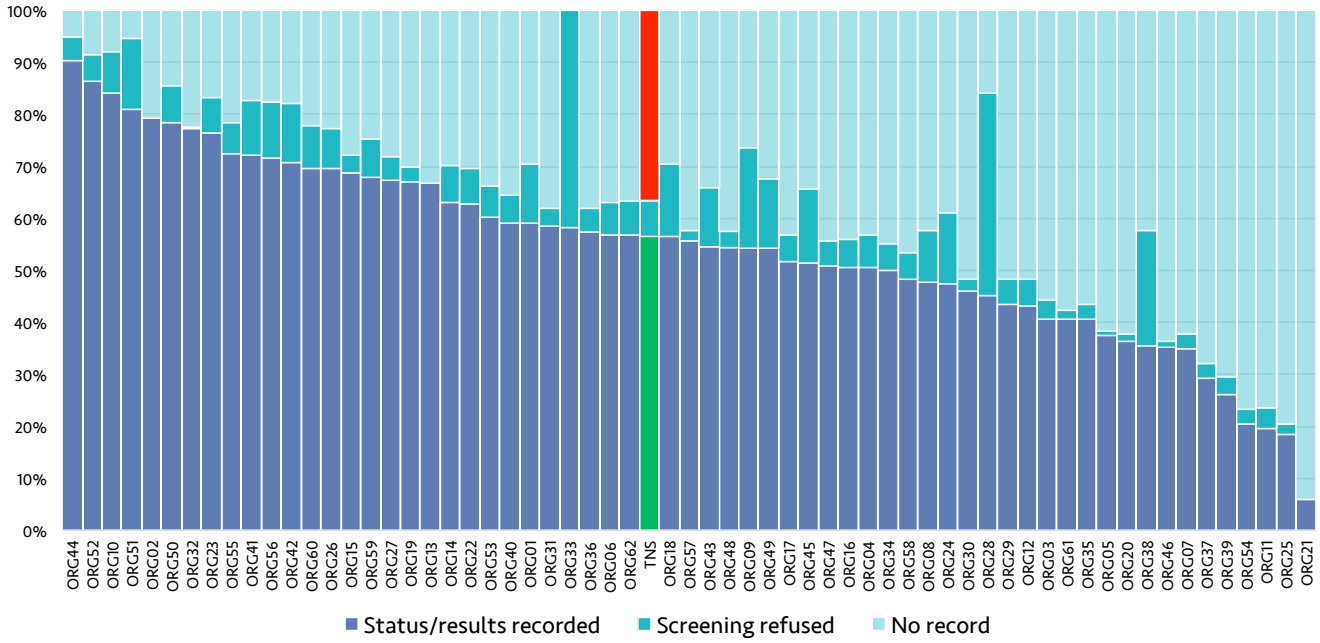


Figure 6: Monitoring of blood lipids across Trusts in the past 12 months (n=7,773)

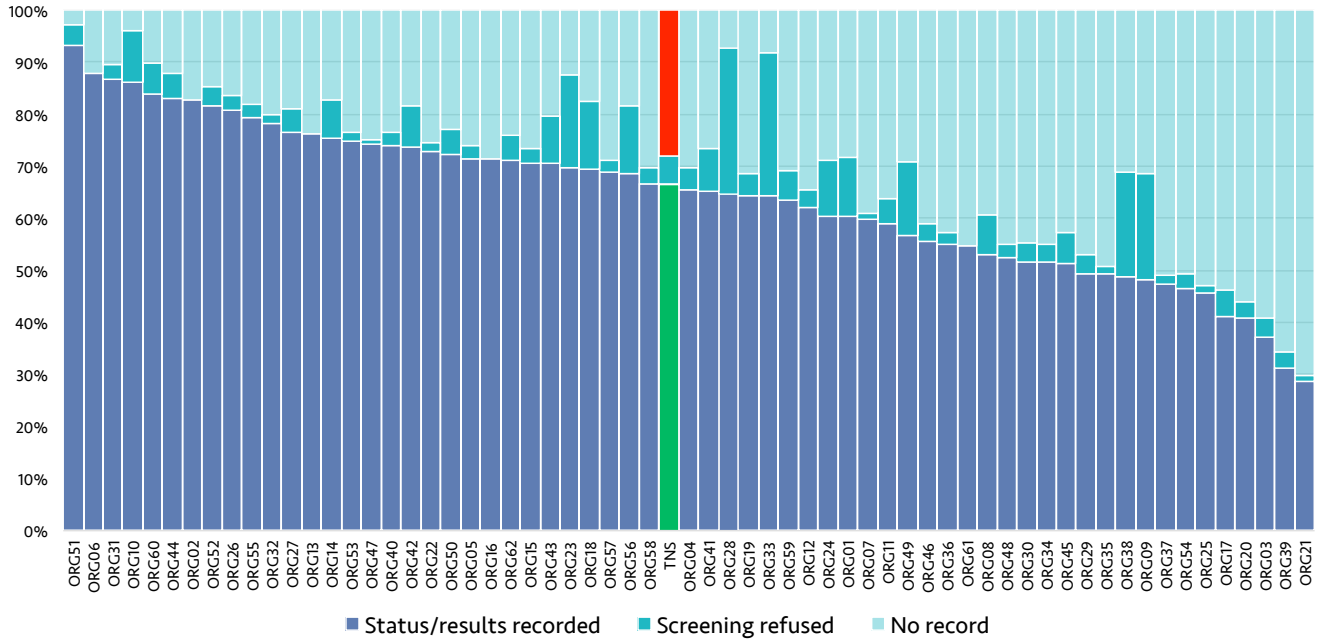


Figure 7: Monitoring of blood pressure across Trusts in the past 12 months (n=7,773)

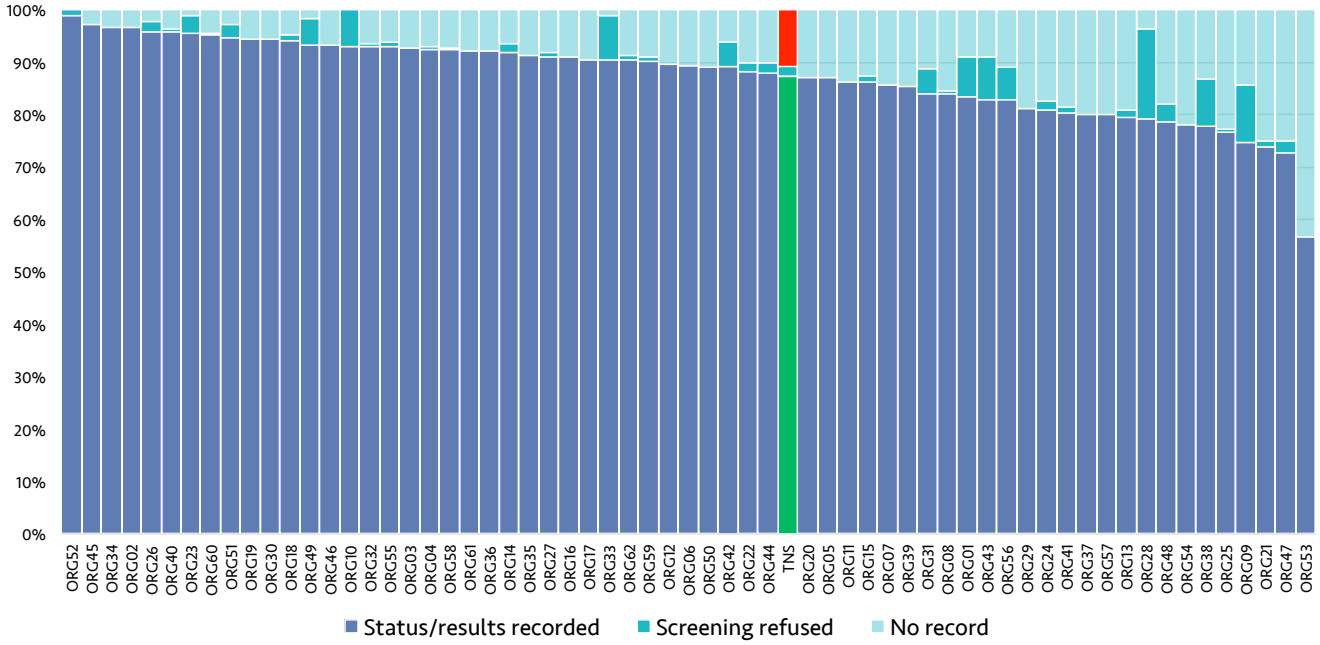


Figure 8: Monitoring of alcohol consumption across Trusts in the past 12 months (n=7,773)

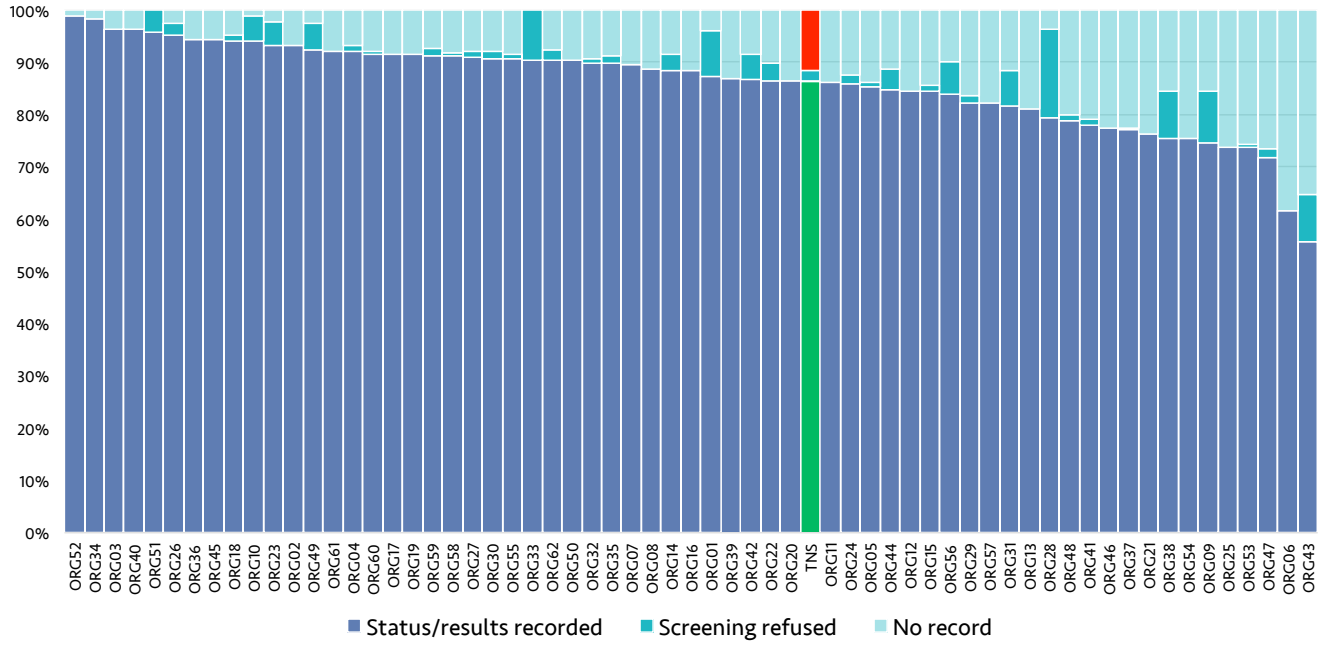


Figure 9: Monitoring of substance misuse across Trusts in the past 12 months (n=7,773)

Recording of relevant family medical history

Asking about family history of CVD, diabetes, hypertension and lipid problems is important in determining familial risk factors for cardiometabolic disease. However, this information is frequently unavailable, or not easily accessible, in the case records of these patients. Table 12 shows that no information was available for 75% to 80% of enquiries about each disorder.

It is not easy to remember to update this information every few years for patients who may have been in the care of a mental health team for many years. While it may be recorded at an initial consultation this information may be difficult to find many years later. This suggests a need to have some form of record of basic information that can be reviewed and updated on an annual basis.

Monitoring of patients with a known relevant medical history

Patients with schizophrenia have higher rates of CVD, diabetes and obesity. Inevitably, this means that a proportion of the population selected for this audit will already be known to have these problems. We would expect that such individuals might receive better monitoring of important physical health measures than other patients. Table 13 compares the proportion of patients known to have CVD, diabetes or obesity, who have had appropriate monitoring, with the proportion of the whole NCAP community sub-sample who have had monitoring. The source of information used to determine who is 'known' to have these problems is Question 23 in the audit of practice form (for CVD and diabetes) and the data returned on BMI for Question 28.

The reason for inclusion of those with CVD and diabetes is straightforward: these are serious disorders with potentially serious consequences. Those with a high BMI are included because the NICE guideline on obesity (NICE CG189, 2014; paragraph 1.2.9) regards those with a BMI of 30 kg/m², or greater, as being at increased risk of long-term health problems.

The findings in Table 13 suggest that patients with known histories of CVD and diabetes do experience modestly better monitoring compared to the whole NCAP community sub-sample. Those with a BMI indicating obesity seem to experience a considerably better level of monitoring. The overall pattern of differences seen here,

Table 12: Record of relevant family medical history (n=7,773)

Family history of:	'Yes' recorded	'No' recorded	No record available
Cardiovascular disease	9%	17%	75%
Diabetes	8%	16%	75%
Hypertension	5%	16%	79%
Dyslipidaemia	3%	17%	80%

Table 13: Monitoring of cardiometabolic health risks for patients with a known relevant medical history and comparison with results for the NCAP community sub-sample

		% of patients with each known health problem who have been monitored		
Risk Factor to be monitored	% monitored in the NCAP community sub-sample (n=7,773)	History of CVD (n=475)	History of diabetes (n=1,242)	BMI ≥ 30 kg/m² (n=2,135)
All five factors below	42	46	51	68
Smoking	86	90	90	96
BMI	65	69	71	100*
Glucose	59	65	73	79
Lipids	57	61	67	77
Blood pressure	66	71	74	93

*We only know that an individual has a high BMI if it has been returned in the audit.

between the whole NCAP community sub-sample and these sub-groups, is very similar to that seen in NAS2 (NAS2 National Report, 2014; Table 32) but with overall improvement for all measures.

How comprehensive is the assessment?

The data described in the sections above indicate how well individual risk factors have been monitored. However, to properly fulfill NICE guidance, each patient should have all these risk factors monitored, and the information recorded, at least once annually. This section examines what proportion of patients received a fully comprehensive assessment and the proportions receiving lesser degrees of assessment. This was judged on whether a comprehensive assessment of the five major risk factors for CVD (smoking, BMI, glucose, lipids, blood pressure), as indicated from the long-term Framingham studies (Wilson et al., 1998), had been carried out.

Figure 10 shows the proportions of patients who have had various possible combinations of risk factors monitored. The percentage who had fully comprehensive screening, i.e. of all five risk factors, is 42%. Figures 11a and 11b show comparable data from the NAS1 and NAS2 audits.

Figure 12 shows the variation in performance across Trusts for monitoring of all five of these important risk factors, with an overall average, as above, of 42%. The variation across Trusts is considerable and ranges from 4% to 78%. Only 16 Trusts managed comprehensive screening for more than half of their patients.

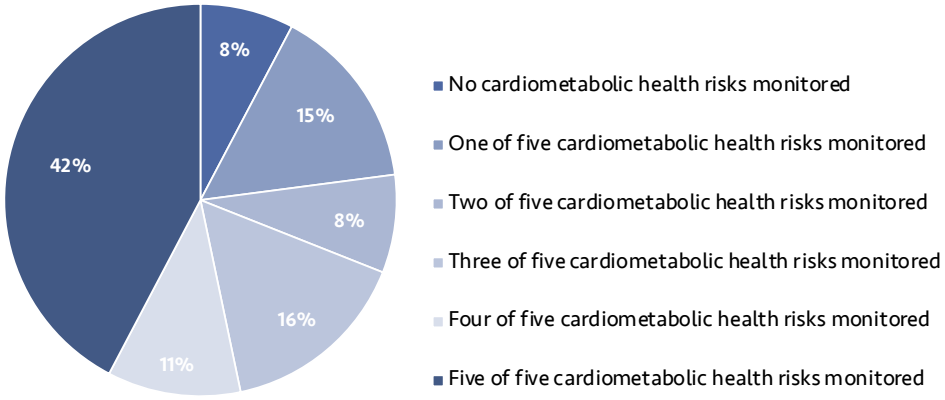
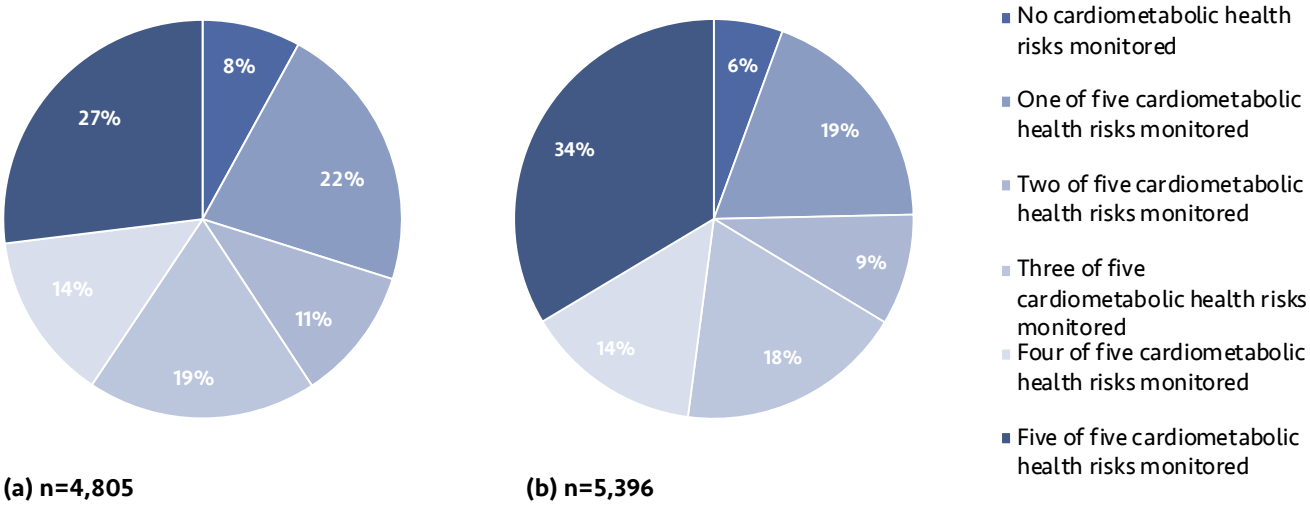


Figure 10: Percentage of patients with different proportions of cardiometabolic health risk factors monitored once in the past 12 months (n=7,773)



(a) n=4,805 **(b) n=5,396**

Figure 11: Percentages of patients in NAS1 (a) and NAS2 (b) with different proportions of cardiometabolic health risk factors monitored once in the past 12 months

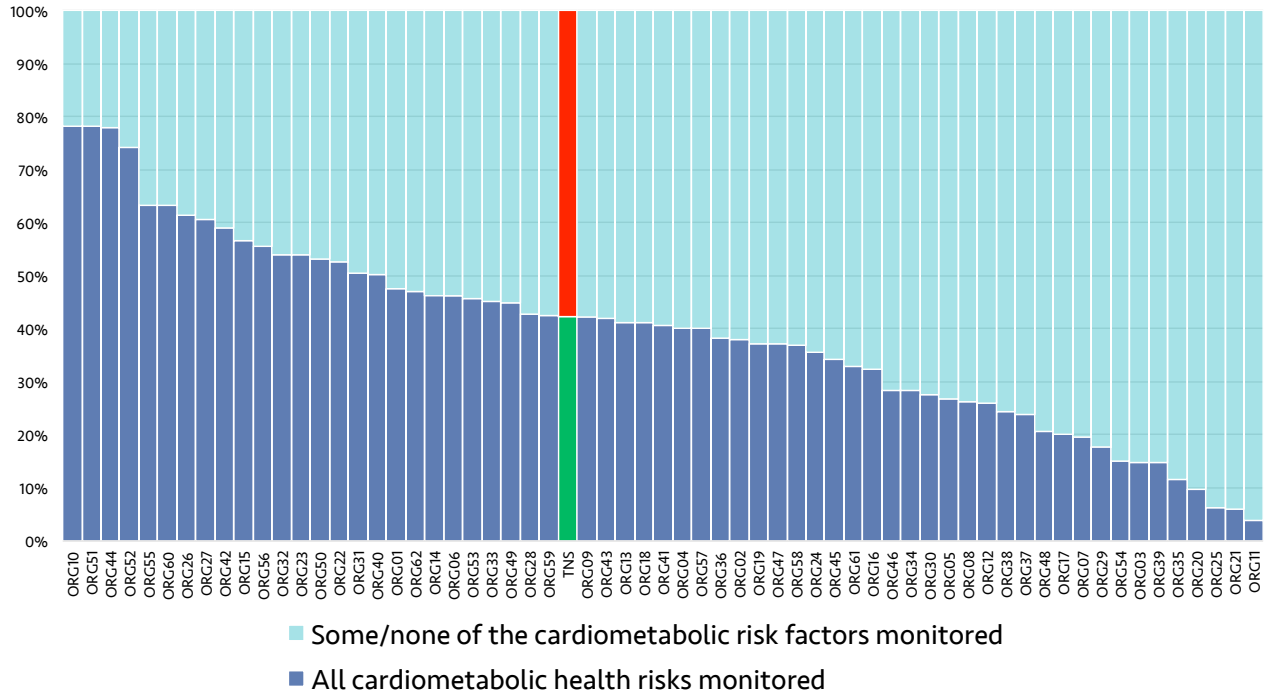


Figure 12: Comprehensive monitoring of all five cardiometabolic health risk factors across Trusts in the past 12 months (n=7,773)

Standard 1: Comparison of the findings for physical health monitoring from NCAP with those from NAS1 and NAS2

Table 14 shows a summary of key comparisons between the findings in this third round of the audit (NCAP) versus the findings from the previous two audits (NAS1 and NAS2). These are shown as percentages. Some of the percentages shown for NAS1 and NAS2 may differ slightly from those in the original reports as these have been recalculated to exclude those patients who were attending EI services, as these patients were not included in NCAP.

Comparison of the findings from all three national audits show clear improvement over six years in the proportion of patients who have all of the main five risk factors assessed and the proportion who have their BMI/weight assessed. Monitoring of alcohol use has also improved considerably. Other measures have shown either slight improvements or little change, with differences between audits being within the degree of variation that one might expect when selecting a new random sample of cases.

Table 14: Comparison of NCAP with NAS2 and NAS1 for physical health monitoring (Standard 1)

Indicator	NCAP %	NAS2 %	NAS1 %
Monitoring of all five CVD risk factors	42	34	27
Monitoring of smoking	86	89	87
Monitoring of BMI/weight	65	52	48
Range across Trusts for BMI	19–94	4–93	25–84
Monitoring of glucose control	59	57	50
Range across Trusts for glucose	7–90	17–99	25–83
Monitoring of lipids	57	58	48
Monitoring of blood pressure	66	62	57
Monitoring of alcohol consumption	87	70	69
Monitoring of substance misuse	86	89	84

STANDARD 2

Intervention to address physical health problems identified by monitoring

If monitoring of physical health identifies a problem, then clearly an appropriate intervention should be offered for that problem. This is encapsulated in the strap line of the Lester Resource 'Don't just screen, intervene'. Standard 2 reflects the statements regarding intervention for physical health problems made by NICE in the main psychosis and schizophrenia guideline (NICE CG178, 1.1.3) and in the Quality Standards guideline (NICE QS80, Quality Standard 7).

Standard 2

When monitoring within the past 12 months has indicated a need for intervention, the following have been offered to the patient or the treating clinician has made a referral for the patient to receive:

- help with smoking cessation
- advice about diet and exercise, aimed at helping the person to achieve and/or maintain a healthy BMI
- treatment for diabetes
- treatment for dyslipidaemia
- treatment for high blood pressure
- help with reducing alcohol consumption
- help with reducing substance misuse.

The data are described in the following order:

1. Derivation of the data and criteria applied regarding decisions about requirement for intervention.
2. Overall summary of findings.
3. Provision of intervention for each physical health risk factor in the same order as these are listed in Standard 2, above.
4. Comparison of results from NCAP with those from NAS1 and NAS2.

Derivation of the data and criteria applied regarding decisions about requirement for intervention

The following describes how the data used for analysis of any requirement for intervention were derived and how certain percentages were calculated:

- The decision that an intervention might be required was made using the information supplied for the relevant monitoring questions – Questions 25 to 31 of the audit of practice form completed by Trusts.
- Evidence that an intervention was offered comes from Questions 32 to 38 of the audit of practice form. These questions offer a range of possible interventions for each physical health problem identified. We do not apply any judgement regarding appropriateness of the interventions offered.
- The percentage of patients where monitoring indicated a requirement for an intervention is expressed as a percentage of the number who were monitored for that risk factor. This is because the numbers monitored vary between risk factors.
- The percentages provided for the proportions offered an intervention are expressed as a percentage of the number for whom a need for intervention was indicated, as this also varies between risk factors.

The criteria applied for a decision that intervention was required were as below.

- **Cigarette smoking**: Q25 records that the patient was a smoker
- **BMI**: BMI recorded as ≥ 25 kg/m^2 (for South Asian and Chinese ≥ 23 kg/m^2); for the analyses of individual Trust comparison data (Figure 14) a record of weight gain > 5 kg in the previous 3 months was also used
- **Glucose control**: At least one of: FPG ≥ 5.5 mmol/l; RPG ≥ 11.1 mmol/l; HbA_{1c} ≥ 42 mmol/mol

- **Lipid abnormality**: At least one of: TC > 6 mmol/l; nHDL > 4mmol/l; Q-Risk score > 10%
- **Blood pressure**: Systolic BP > 140 mm or diastolic BP > 90mm
- **Alcohol consumption**: Q26 recorded as indicating harmful or hazardous use of alcohol
- **Substance misuse**: Q27 records evidence of substance misuse

Summary of findings

In Table 15 the calculation for the percentage of those who *require an intervention* is based on the actual numbers who were monitored. Thus, we must be cautious in extrapolating to the whole audit population from these percentages. We cannot know if the same proportions would apply to those for whom no monitoring data were supplied.

Table 15: Percentage of patients in the NCAP community sub-sample (n=7,773) where a need for intervention for a physical health problem was identified and percentage where there was evidence that this was offered

Physical health indicator	Patients monitored n (% of total sample)	Number requiring an intervention n (% of those monitored)	Number requiring an intervention and who were offered one n (% of those requiring intervention)
Cigarette smoking	6,694 (86)	3,781 (56)	3,004 (79)
BMI* ≥ 25 kg/m^2	5,081 (65)	3,550 (70)	2,813 (79)
BMI* ≥ 30 kg/m^2	5,081 (65)	2,135 (42)	1,860 (87)
BMI* ≥ 23 kg/m^2 (South Asian and Chinese only)	333 (66)	263 (79)	192 (73)
Glucose control	4,615 (59)	1,006 (22)[1]	757 (75)[1]
Lipids	4,399 (57)	1,035 (24)[2]	543 (52)[2]
Blood pressure	5,167 (66)	1,076 (21)[3]	621 (58)[3]
Alcohol consumption	6,783 (87)	769 (11)	682 (89)
Substance misuse	6,709 (86)	1,123 (17)	928 (83)

*Three thresholds for intervention are used for BMI:
- BMI ≥ 25 kg/m² is used as this equates to overweight and above. This includes any South Asian or Chinese people with BMI ≥ 25 kg/m².
- BMI ≥ 30 kg/m² equates to obesity (NICE CG189, 2014) in which people are regarded as being at increased risk of long-term health problems.
- A separate threshold for analysis of data from all people whose ethnicity was South Asian or Chinese.

Some values were removed from the analysis because they were so extreme as to be deemed to be an error. All other data for the respective cases was retained for analysis. The values removed are noted below:
1. One case removed due to an extreme value for HbA_{1c} (had a normal RPG and thus did not require an intervention).
2. Two cases removed due to extreme values (one had an alternative lipid measure which was normal, and thus did not require an intervention. The other had no alternative measure recorded).
3. One case removed because of an extreme value.

Intervention for individual risk factors

Intervention for cigarette smoking

Figure 13 shows that an overall average of 79% of current smokers were offered an intervention to help them stop smoking. The range across Trusts was from 31% to 100%. In five Trusts less than half of smokers were offered an intervention.

Looking in more detail at the *whole sub-group* of those who were smokers: 43% were offered an intervention and accepted it; 36% were offered an intervention and refused it; and 21% were not offered any intervention. Expressed as a *percentage of those who were offered an intervention*, 46% refused the offer.

Intervention for elevated BMI

Figure 14 shows that an overall average of 78% of those with an elevated BMI (≥ 25 kg/m² or or ≥ 23 kg/m² if South Asian or Chinese ethnicity) were offered an intervention. This analysis also included those who had weight gain of > 5 kg in the previous 3 months (see page 24). There was a wide range across Trusts, from 0% to 98%. In six Trusts less than half of patients with elevated BMI were offered an intervention and in one Trust no offers were made.

Looking in more detail at the *whole sub-group* of those who were overweight or obese: 72% were offered an intervention and accepted it; 6% were offered an intervention and refused it; and 22% were not offered any intervention. Expressed as a *percentage of those offered an intervention*, 8% refused the offer.

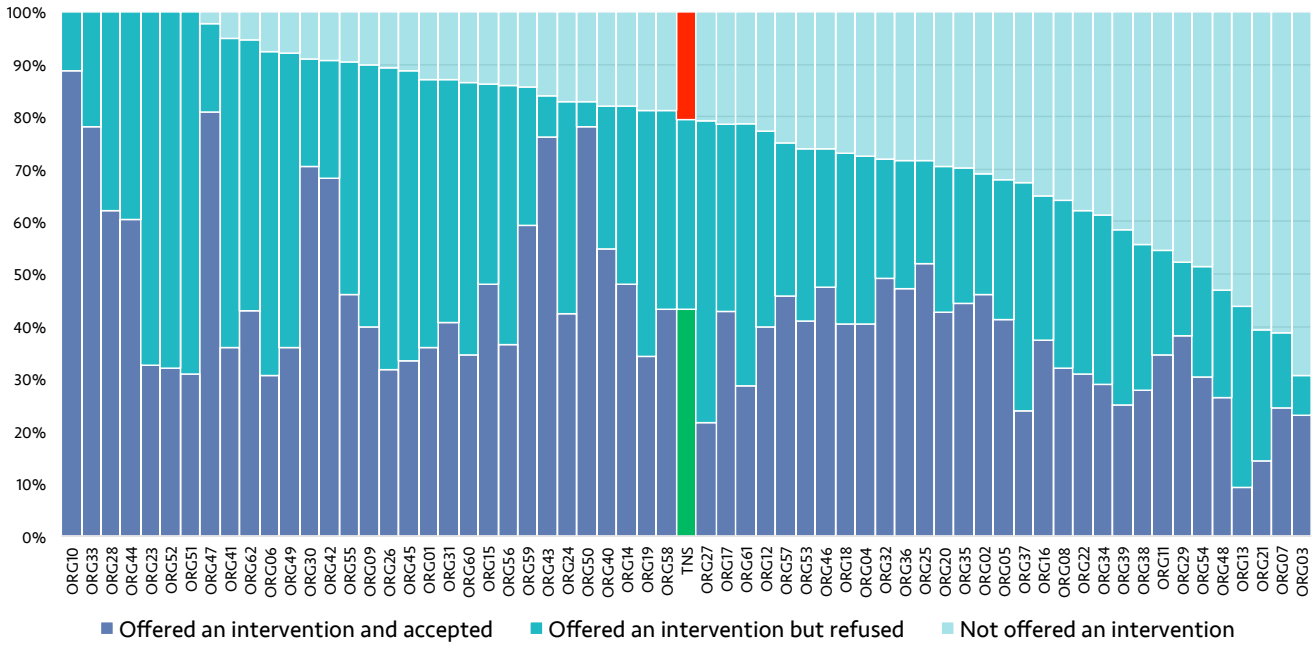


Figure 13: Intervention for cigarette smoking across Trusts (n=3,781 with this risk)

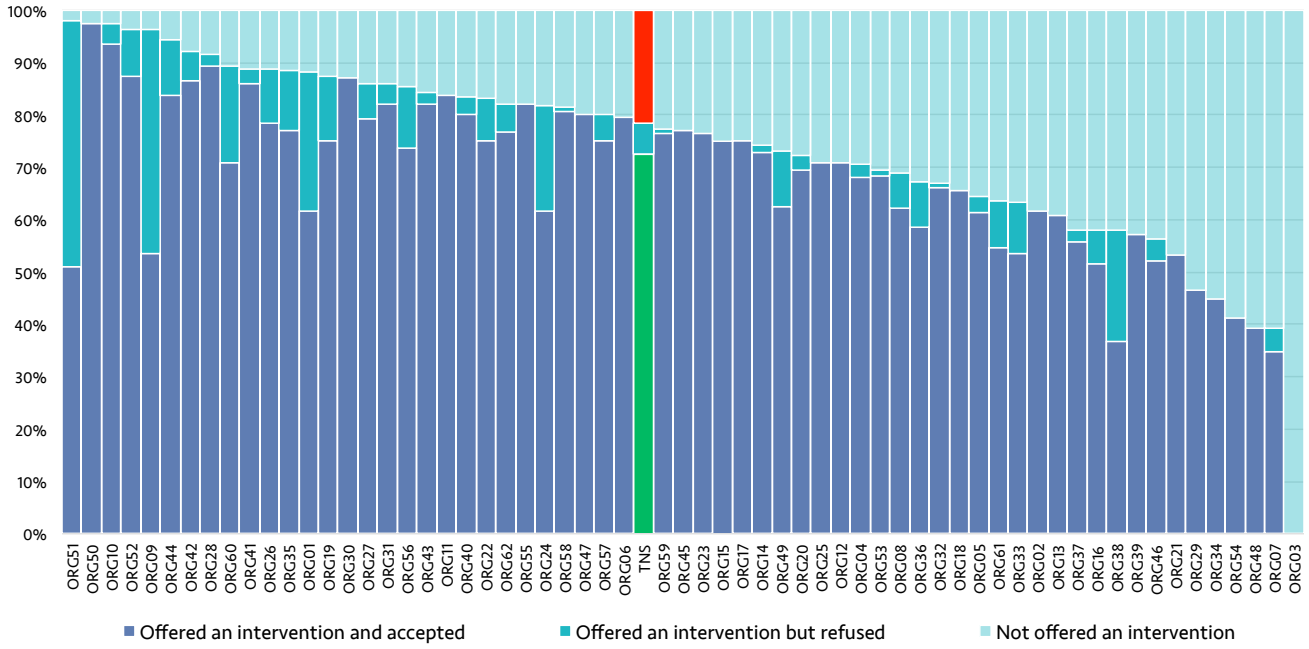


Figure 14: Intervention for elevated BMI across Trusts (n=3,704 with this risk)

Intervention for poor blood glucose control

Figure 15 shows that an overall average of 75% of those with abnormal glucose control were offered an intervention (one patient with an extreme value for HbA_{1c} was removed from this analysis). There was a wide range across Trusts, from 20% to 100%. In one Trust, unusually, all such patients offered an intervention were reported to have refused the offer. In six Trusts less than half of patients with abnormal glucose control were offered an intervention.

Looking in more detail at the *whole sub-group* of those who had abnormal glucose control: 74% were offered an intervention and accepted it; 1% were offered an intervention and refused it; and 25% were not offered any intervention. Expressed as a*percentage of those who were offered an intervention*, 2% refused the offer.

Though the audit standard required intervention for patients with diabetes, we have applied criteria that also include those with pre-diabetes, as intervention that may be preventative is important. Further analysis was conducted to examine the effect of having a known diagnosis of diabetes (as per Question 23 of the audit of practice form). This showed that, for those with a known diagnosis of diabetes, 93% for whom monitoring suggested intervention was required had been offered an intervention. However, only 52% of those for whom monitoring suggested they had pre-diabetes, or undiagnosed diabetes, had been offered an intervention.

Intervention for lipid abnormality and overall cardiovascular risk

Figure 16 shows that an overall average of 52% of those whose lipids or Q-Risk score were found to be abnormal were offered an intervention (two patients with extreme lipid values were removed from this analysis). There was a wide range across Trusts, from 0% to 100%. In 26 Trusts, less than half of patients with lipid abnormalities were offered an intervention and in two Trusts no offers were made. Possible interventions, as appropriate to the clinical circumstances, were as per guidance in the Lester Resource (Shiers et al, 2014): a review of antipsychotic medication, advice about diet and/or exercise, prescription of a statin or referral to a primary or secondary care physician.

Looking in more detail at the *whole sub-group* of those who had a lipid abnormality: 50% were offered an intervention and accepted it; 3% were offered an intervention and refused it; and 48% were not offered any intervention. Expressed as a *percentage of those who were offered an intervention*, 5% refused the offer.

Q-Risk

As noted under Monitoring (page 23) only 3% of the NCAP community sub-sample (n=7,773), and 4% of the complete NCAP audit sample (n=9,449), had a Q-Risk score reported. While Q-Risk has limitations for younger people, and probably underestimates risk for CVD

in people with psychosis, it is currently the most readily available and widely used tool for doing this in the UK. As NICE (NICE CG181, 1.1.8) recommend Q-Risk for assessing risk in the general population, and as people with psychosis have higher mortality from cardiovascular disease, it would seem appropriate to use it for people with psychosis, while keeping its limitations in mind.

A new version, Q-Risk3, is likely to become the standard version later in 2018. Q-Risk3 has amendments intended, in part, to make it more applicable to people with mental illnesses. It is possible that a specific 'CVD risk assessment tool' for people with severe mental illnesses, developed on a UK population, may become available within the next few years, but at present Q-Risk represents the available practical approach.

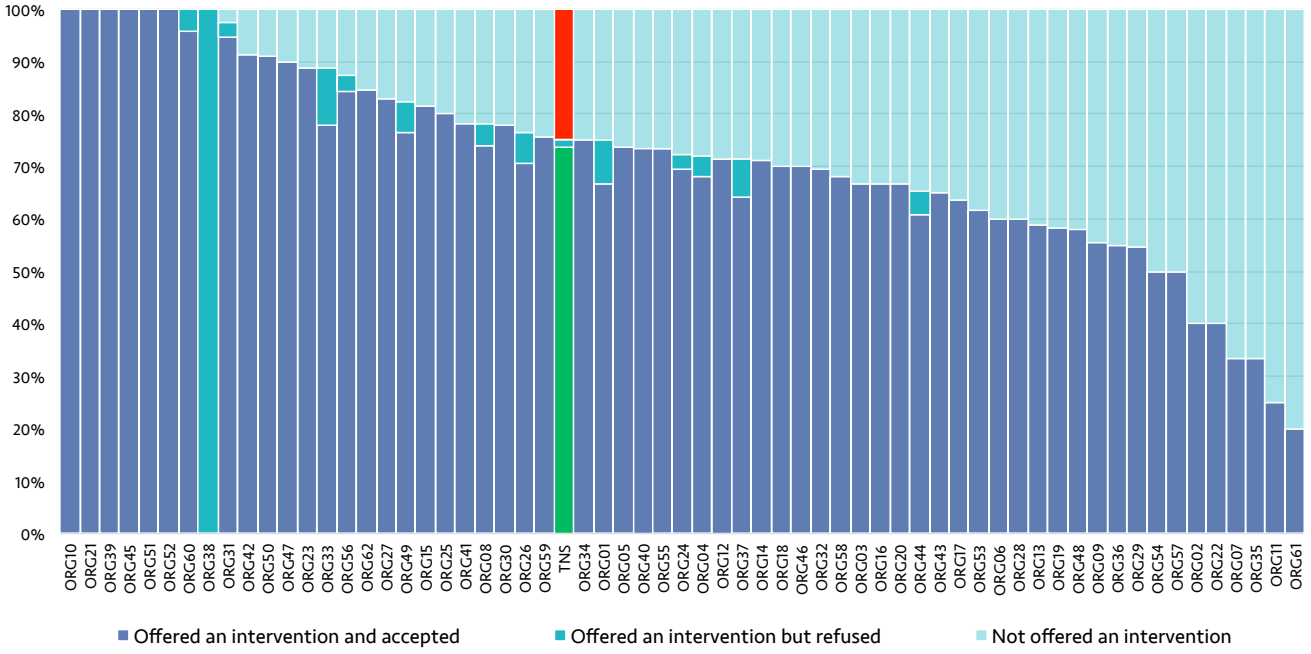


Figure 15: Intervention for abnormal blood glucose control (FPG or RPG or HbA_{1c}) across Trusts (n=1,006 with this risk)

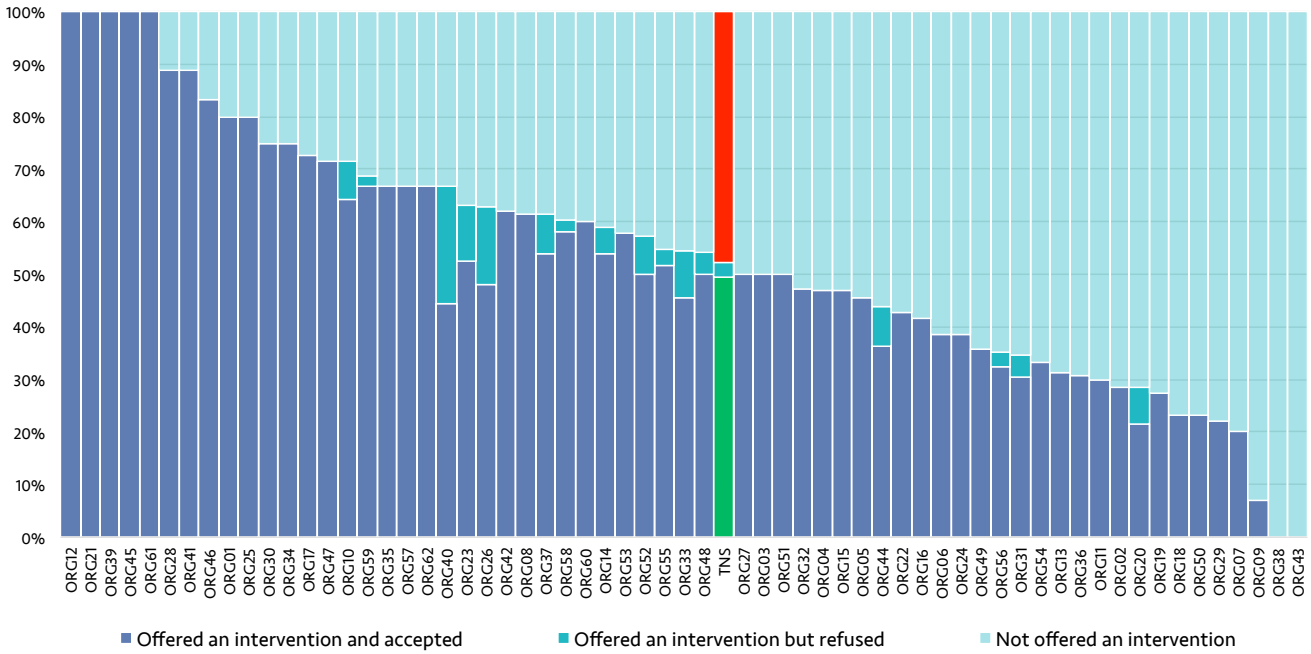


Figure 16: Intervention for abnormal lipids across Trusts (n=1,035 with this risk)

Intervention for elevated blood pressure

Figure 17 shows that an overall average of 58% of those whose blood pressure was found to be elevated were offered an intervention (one patient with an extreme value was removed from this analysis). There were 28 patients (3%) who at one point in the 12-month audit period were found to have high blood pressure but whose blood pressure was found to be normal on repeat testing. These patients did not require an intervention and had been properly managed. There was a wide range across Trusts, from 0% to 100%. In 24 Trusts less than half of patients with elevated blood pressure were offered an intervention and in one Trust, no offers were made.

Looking in more detail at the *whole sub-group* of those who had elevated blood pressure: 55% were offered an intervention and accepted it; 3% were offered an intervention and refused it; and 42% were not offered any intervention. Expressed as a *percentage of those who were offered an intervention*, 5% refused the offer.

Intervention for harmful or hazardous use of alcohol

Figure 18 shows that an overall average of 89% of those whose use of alcohol was judged to be harmful or hazardous were offered an intervention. There was a wide range across Trusts, from 0% to 100%. In only one Trust were less than half of patients with harmful/hazardous use offered an intervention, and in this Trust, no-one was offered an intervention.

Looking in more detail at the *whole sub-group* of those whose alcohol consumption was judged to be harmful or hazardous: 68% were offered an intervention and accepted it; 21% were offered an intervention and refused it; and 11% were not offered any intervention. Expressed as a *percentage of those who were offered an intervention*, 23% refused the offer.

Intervention for substance misuse

Figure 19 shows that an overall average of 83% of those with substance misuse were offered an intervention. There was a wide range across Trusts, from 40% to 100%. In one Trust less than half of patients with substance misuse were offered an intervention.

Looking in more detail at the *whole sub-group* of those with substance misuse: 61% were offered an intervention and accepted it; 22% were offered an intervention and refused it; and 17% were not offered any intervention. Expressed as a *percentage of those who were offered an intervention*, 26% refused the offer.

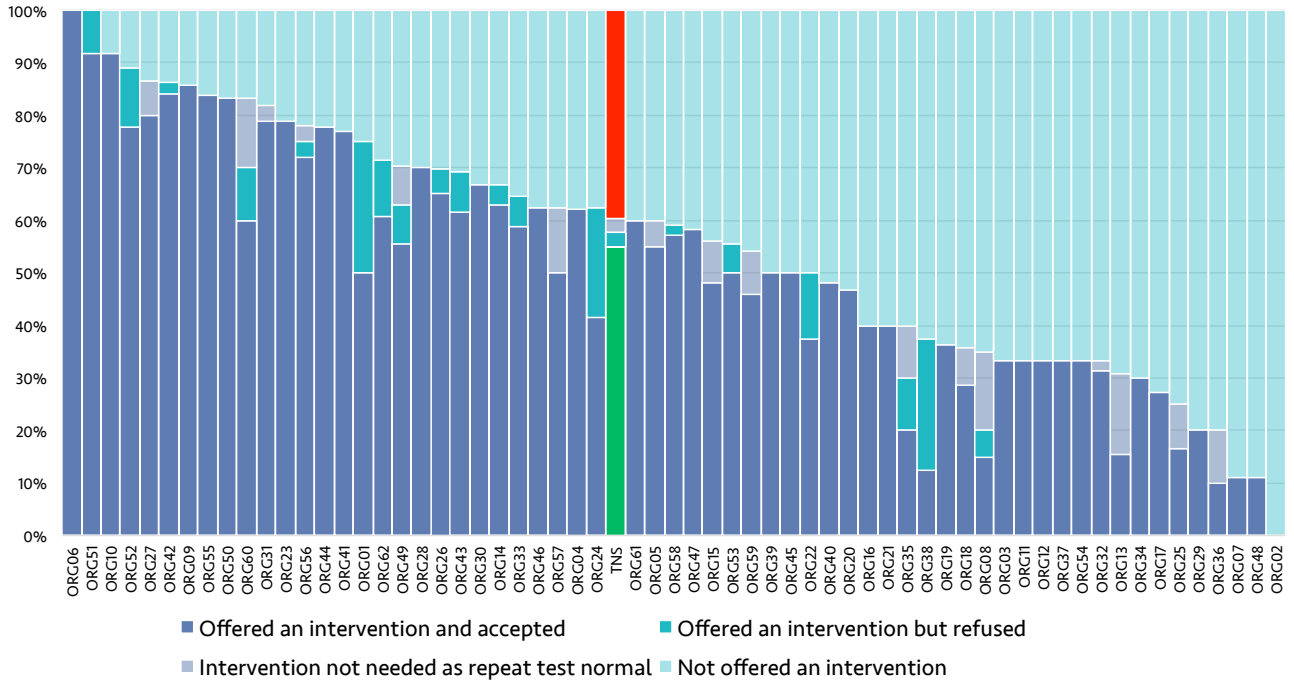


Figure 17: Intervention for elevated blood pressure across Trusts (n=1,076 with this risk)

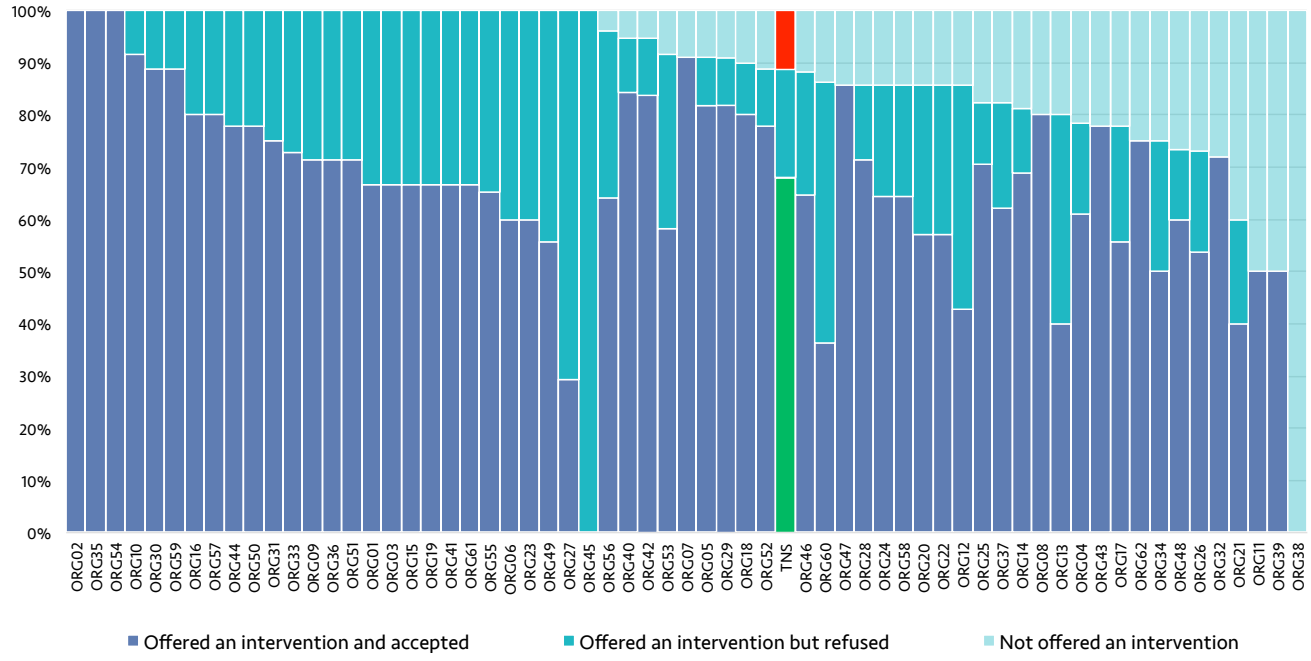


Figure 18: Intervention for harmful/hazardous use of alcohol across Trusts (n=769 with this risk)

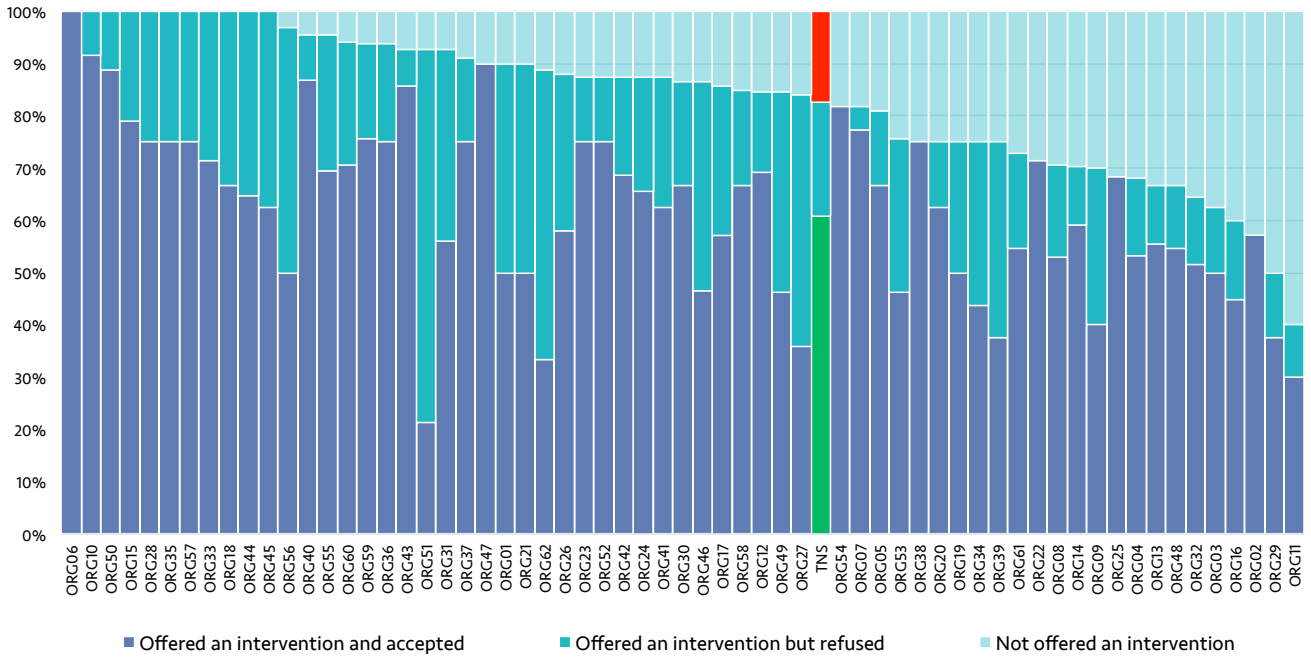


Figure 19: Intervention for substance misuse across Trusts (n=1,123 with this risk)

Standard 2: Comparison of the findings for intervention for physical health problems from NCAP with those from NAS1 and NAS2

Table 16 shows a summary of key comparisons between the findings in this third round of the audit (NCAP) versus the findings from the previous two audits (NAS1 and NAS2), shown as percentages. Some of the percentages shown for NAS1 and NAS2 may differ slightly from those in the original reports as these have been recalculated to exclude those patients who were attending EI services, as these patients were not included in NCAP.

Comparison of the findings from all three national audits shows clear improvement over six years regarding evidence that an intervention is being offered for these physical health risk factors. Nevertheless, as Table 15 shows, too many patients still do not receive necessary interventions. In particular, for lipids and blood pressure, monitoring remains below 60% and intervention, where required, remains below 60%.

Further, more detailed analysis shows that 86 patients met criteria for diabetes (FPG ≥ 7 mmol/l and/or HbA_{1c} ≥ 48 mmol/mol) but did not have any known history of diabetes. Of these patients, 32 had no record of any intervention. Thus, in this randomly selected population, there may be 32 patients with diabetes that has not yet been recognised or treated. This suggests either significant errors in recording information or that important problems can be missed. The relevant Trusts were notified about these cases.

Table 16: Comparison of NCAP with NAS2 and NAS1 for intervention for physical health problems (Standard 2)

Indicator	NCAP %	NAS2 %	NAS1 %
Intervention for smoking	79	59	57
Intervention for BMI ≥ 25 kg/m^2	78*	70	73
Intervention for abnormal glucose control	75	34	26
Intervention for abnormal lipids	52	29	24
Intervention for elevated blood pressure	58	25	26
Intervention for harmful/hazardous use of alcohol	89	73	71
Intervention for substance misuse	83	72	73

* This percentage relates to the data shown in Figure 14, which takes ethnicity into account and includes weight gain of > 5 kg in the previous 3 months (see pages 32 and 33).

Prescribing of antipsychotic medications

This section presents the findings relating to aspects of prescribing of antipsychotic medication for the NCAP community sub-sample (n=7,773). Note that some of the data presented will relate only to those patients who were actually prescribed antipsychotic medication on the census date (n=7,586), as 187 patients were not currently prescribed an antipsychotic.

Detail of each of the relevant Standards (Standards 3, 4, 5 and 6) will be described at the beginning of the relevant sub-section.

Standard 3: Provision of information

People with severe mental illness want to be involved in treatment decisions and this is recommended in the main NICE guideline on psychosis and schizophrenia (NICE CG178, 1.3.5.1) which indicates that appropriate information should be made available to patients.

Standard 3

The patient has been provided with evidence based, written information (or an appropriate alternative), in an accessible format, about the antipsychotic drug they are currently prescribed.

Figure 20 shows that, according to Trust records, an overall average of 30% of patients had been given either written information or access to another format to view this (e.g. on the internet). The range across Trusts was from 2% to 70% and only four Trusts achieved this for more than half of their patients.

This is a disappointing finding, particularly as it is lower than the 37% reported from Trust records in NAS2. In NAS2, 39% of patients reported they had been given such information in a format that was understandable (data from the NAS2 survey of patient experience). Without a survey of patient experience, it is difficult to fully evaluate this finding. It is undoubtedly difficult to ascertain such information from case records if a patient has a

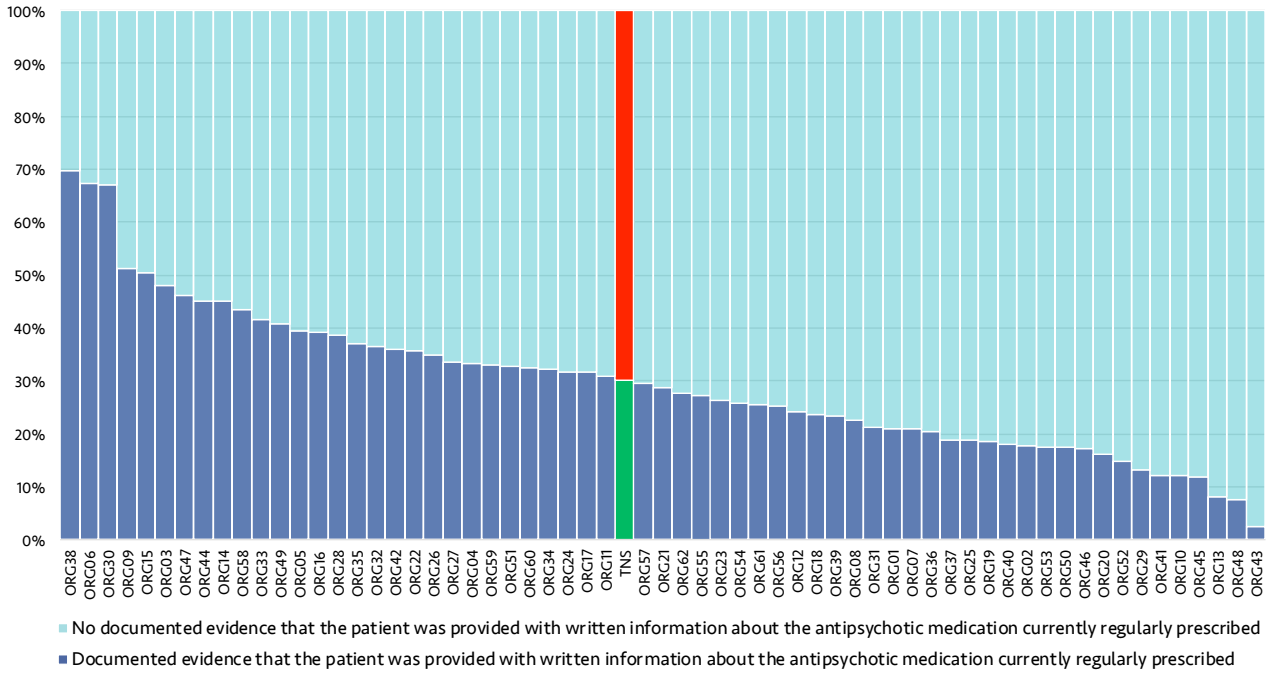


Figure 20: Provision of written or other information about antipsychotic medication (n=7,586 patients who were currently prescribed antipsychotic medication)

long history of illness. However, as only 4% of patients were EI team patients in NAS2, the exclusion of such patients from NCAP is unlikely to explain the difference between the two audits.

Standard 4: Patient involvement in prescribing decisions

Shared decision making can improve adherence to treatment. Again, the main NICE guideline on psychosis and schizophrenia (NICE CG178, 1.3.5.1 & 1.3.6.3) indicates that this should be part of the prescribing process.

Standard 4

The patient was involved in deciding which antipsychotic was to be prescribed, after discussion of the benefits and potential side-effects.

Figure 21 shows that, according to Trust records, an overall average of 65% of patients were recorded as having been involved in decisions about the antipsychotic medication prescribed. The range across Trusts was from 28% to 90%. Only two Trusts failed to achieve this for more than half of their patients.

In the NAS2 survey of patient experience, 41% of patients thought they had 'definitely' been involved in the decision process and 30% that they had been involved 'to some extent', against 55% that Trusts reported were involved (case record data). Thus, again, it is difficult to evaluate the finding without a survey of patient experience in this round of the audit.

Figure 22 shows that, according to Trust records, an overall average of 79% of patients were recorded as having been involved in discussion about the benefits and side-effects of the antipsychotic medication prescribed. The range across Trusts was from 55% to 95%.

In the NAS2 patient survey, the percentage of patients reporting that this had occurred (69%) was very similar to that reported by the Trusts in NAS2 (66%).

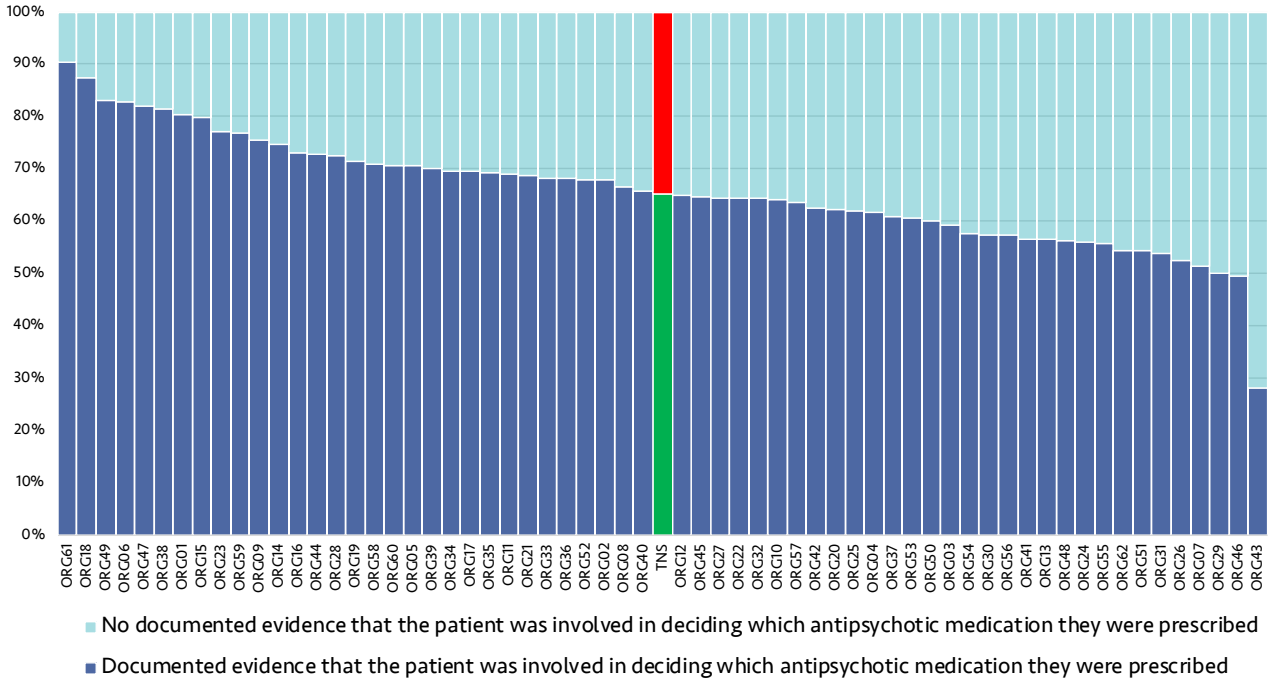


Figure 21: Record of involvement of the patient in prescribing decisions (n=7,586 patients who were currently prescribed antipsychotic medication)

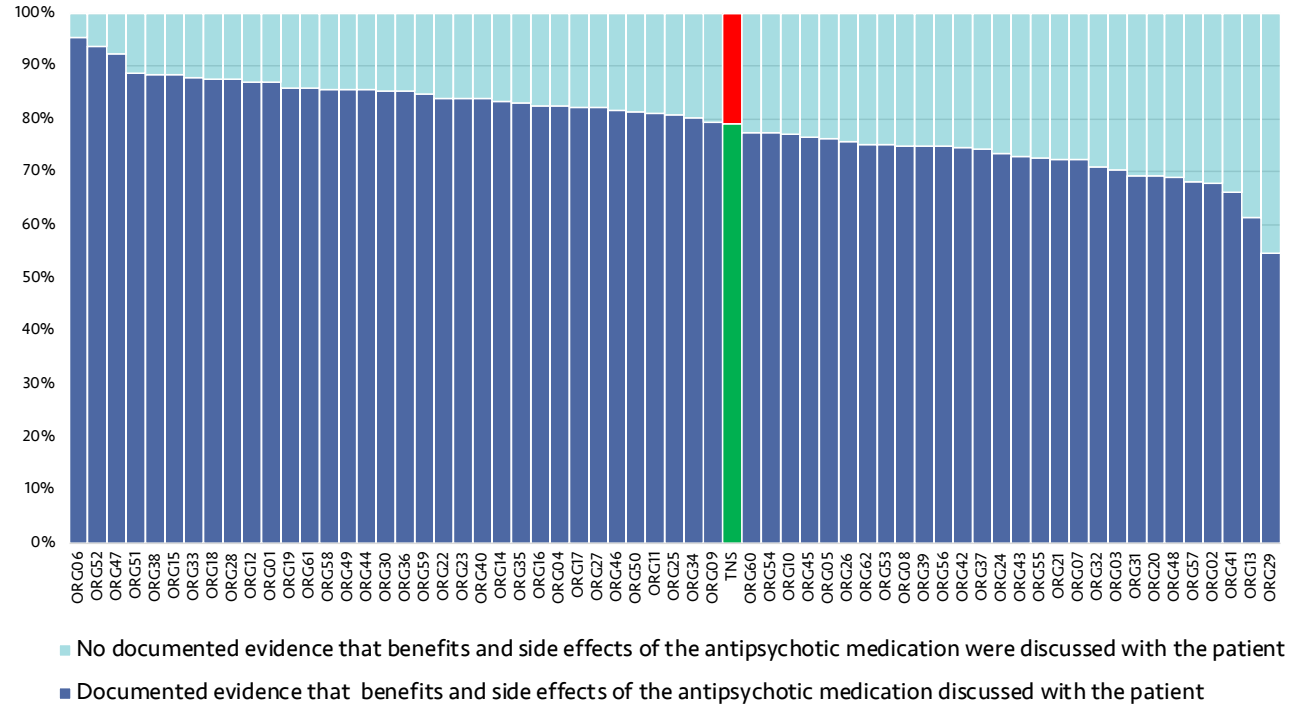


Figure 22: Record of discussion of benefits and adverse effects with the patient (n=7,586 patients who were currently prescribed antipsychotic medication)

Standard 5: Number of antipsychotic medications prescribed

Prescribing of antipsychotic medication is a key consideration in management of the majority of people with a diagnosis of psychosis. It is an important focus of the main NICE guideline on psychosis and schizophrenia (NICE CG178, 2014), which advises that, in most situations, only one antipsychotic medication at a time should be prescribed (NICE CG178, 1.3.6.10).

Standard 5

The patient is currently only prescribed a single antipsychotic drug (unless they are in a short period of overlap while changing medication). If receiving more than one antipsychotic, a rationale for this has been documented.

In general, there is no evidence for greater effectiveness, and the risk of adverse effects increases, with antipsychotic polypharmacy (i.e. the prescribing of more than one antipsychotic medication at the same time). However, when a patient has failed to respond to trials of two or more individual antipsychotic medications it can be permissible to instigate a trial of treatment with two different antipsychotics given at the same time. For example, if non-clozapine antipsychotics have been ineffective, or only partially effective, but the patient cannot be commenced on clozapine. There are also situations relating to adverse effects when it may be permissible to consider addition of a second antipsychotic (e.g. aripiprazole for excessive weight gain with clozapine). If prescribing regimes deviate from standard practice, the reasons for this must be clearly documented in the patient's case record (ideally there should also be clear documentation of a review of whether the deviation was successful).

It is important to note that patients prescribed both an oral and a depot or long-acting injectable (LAI) version of the same drug, at the same time, are regarded as being on a single antipsychotic medication.

Figures 23 and 24 show the proportions of patients in each Trust who are receiving one, two or three antipsychotic medications. Figure 23 shows this for patients prescribed only non-clozapine antipsychotics. Figure 24 shows this for patients who are prescribed clozapine with or without additional other antipsychotics. These analyses are separated into two separate figures because the reasons for prescribing more than one antipsychotic medication can differ between those patients who have an additional antipsychotic added to clozapine and those for whom it is added to another non-clozapine antipsychotic.

Figure 23 shows prescribing practice across Trusts for patients who were not currently prescribed clozapine (n=5,298). The percentages shown in Figure 23 are percentages of the whole NCAP community sub-sample

(n=7,773 patients) and thus the 'bars' do not reach 100%. Also indicated on Figure 23 (in white diamonds) is the percentage of cases being prescribed more than one antipsychotic for whom a rationale has been documented for such polypharmacy.

Figure 23 shows that an average of 58% of the NCAP community sub-sample were being prescribed a single non-clozapine antipsychotic and that 10% of this sub-sample were being prescribed two or three non-clozapine antipsychotics at the same time (polypharmacy). Of those patients prescribed polypharmacy, 74% had a rationale for this recorded in their case records. The range across Trusts for polypharmacy was from 1% to 21%. In NAS2 13% of patients were receiving more than one non-clozapine antipsychotic.

Figure 24 shows prescribing practice across Trusts for patients who are currently prescribed clozapine (n=2,288). The percentages shown in Figure 24 are percentages of the whole NCAP community sub-sample and thus the 'bars' do not reach 100%. Also indicated on Figure 24 (in white diamonds) is the percentage of cases being prescribed more than one antipsychotic for whom a rationale has been documented for such polypharmacy.

Figure 24 shows that an average of 21% of the NCAP community sub-sample were being prescribed clozapine as a single antipsychotic and that 9% were being prescribed clozapine plus one or two non-clozapine antipsychotics at the same time (polypharmacy). Of those clozapine patients prescribed polypharmacy, 78% had a rationale for this recorded in their case records. The range across Trusts for polypharmacy was from 2% to 22%. In NAS2 8% of patients were receiving clozapine plus one or two other antipsychotics.

Table 17 describes the broad types and combinations of medications prescribed and the total number of patients receiving each regime. Two percent (n=187) were not prescribed any antipsychotic medication, 79% (n=6,137) were being prescribed a single antipsychotic medication and no patients were being prescribed more than three antipsychotics.

The most frequent combinations leading to polypharmacy were a combination of clozapine with a second oral antipsychotic drug, a combination of a long-acting injectable preparation with an oral antipsychotic and a combination of two non-clozapine oral antipsychotic drugs.

This audit found that 29% of patients on clozapine were receiving a second oral antipsychotic drug, increased from 25% in NAS2. The most commonly prescribed additional antipsychotics were amisulpride (13% of patients on clozapine) and aripiprazole (11% of patients on clozapine). However, together amisulpride and aripiprazole now account for 82% of polypharmacy in patients on clozapine. In NAS2 these two drugs accounted for 69% of polypharmacy with clozapine. During the last four years, there has been an approximately 30% increase in the

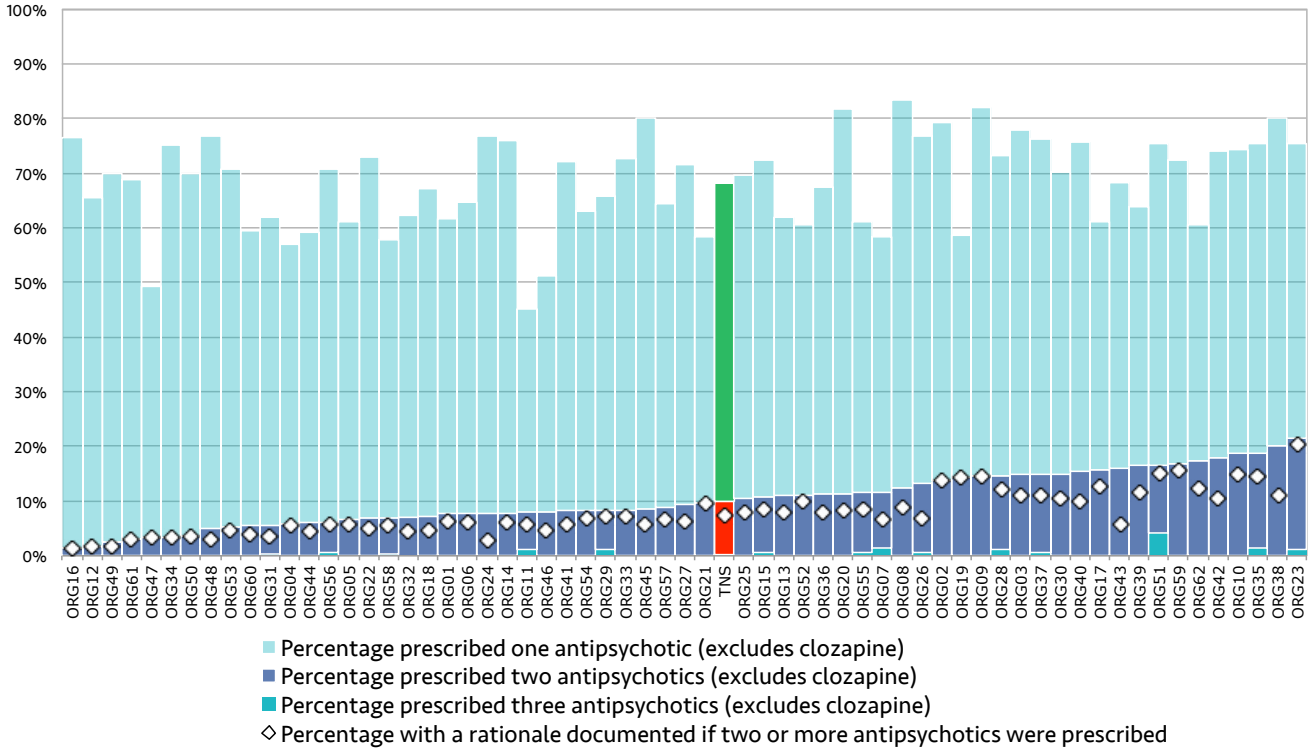


Figure 23: Antipsychotic prescribing across Trusts – number of antipsychotic medications prescribed for patients not prescribed clozapine (n=5,298; see text for details)

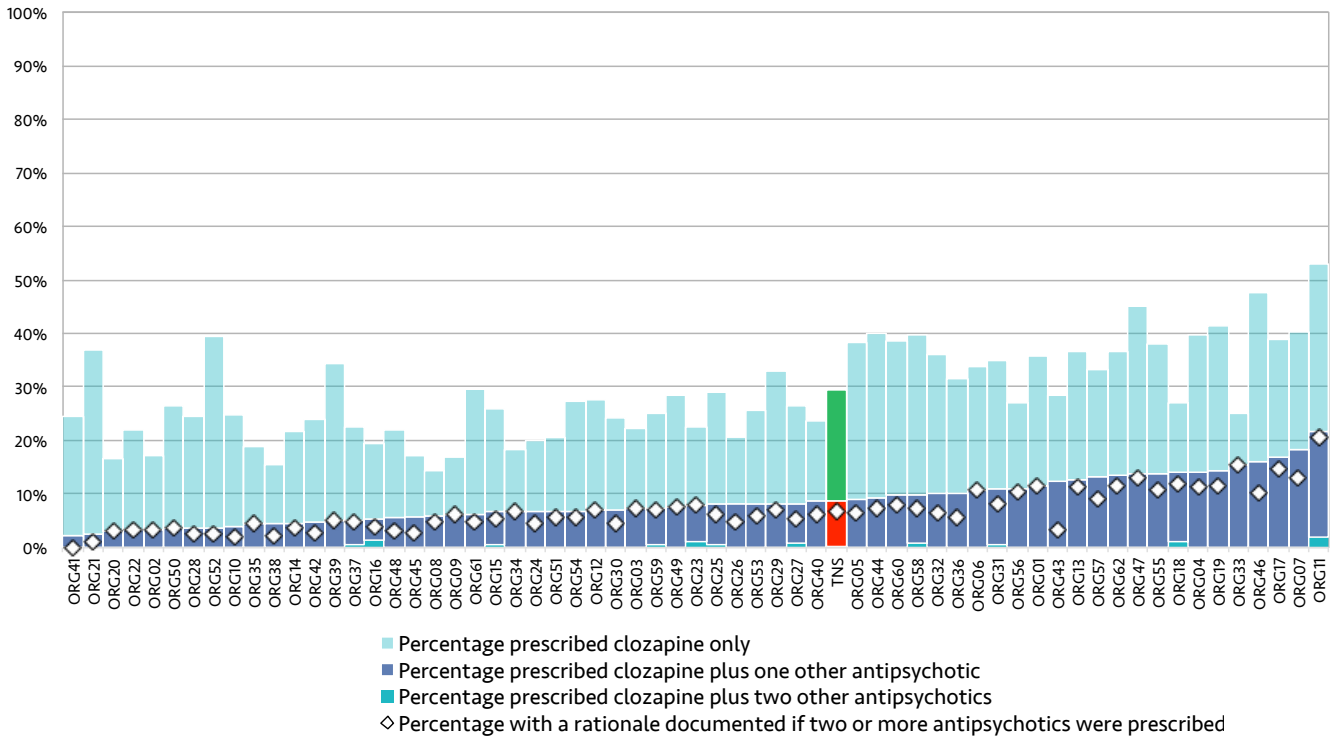


Figure 24: Antipsychotic prescribing across Trusts – number of antipsychotic medications prescribed for patients prescribed clozapine (n=2,288; see text for details)

Table 17: Prescribing by broad groups of, and combinations of, antipsychotic medications: numbers of cases with means and ranges of doses for each regime. (N=7,773)

Type of prescribing regime	No. of cases	% of total sample	% range across Trusts	Mean of BNF maximum dose prescribed (%)	Range of BNF maximum dose prescribed (%)
No antipsychotic	187	2	0–10	–	–
Antipsychotic monotherapy					
one oral (not clozapine)	2,248	29	11–54	60	1–200
one LAI	2,207	28	17–52	47	1–200
one LAI + one oral (same antipsychotic)	71	1	0–5	87	7–167
clozapine	1,611	21	8–36	40	3–100
Antipsychotic polypharmacy, excluding clozapine					
two orals	322	4	0–10	104	15–308
one LAI + one oral	432*	6	0–14	88	11–267
two LAIs	2	<0.1	0–2	48	36–60
three orals	7	<0.1	0–3	162	117–192
one LAI + two orals	9	0.1	0–1	99	35–180
Antipsychotic polypharmacy, including clozapine					
clozapine + one oral	652	8	2–19	81	18–183
clozapine + one LAI	9	0.1	0–1	87	21–161
clozapine + two orals	14	0.2	0–2	100	67–167
clozapine + one LAI/oral*	2**	<0.1	0–1	122	62–181

*n=5 of these patients were prescribed one LAI and two oral antipsychotics where one of the co-prescribed oral antipsychotics was the same antipsychotic as the LAI. Thus, they were only receiving two distinct antipsychotics.
**For both of these patients, a LAI and a second oral antipsychotic were prescribed in addition to clozapine. The LAI was the same antipsychotic as the co-prescribed oral antipsychotic.
BNF = British National Formulary
LAI = long-acting injectable or depot antipsychotic medication
Oral = oral antipsychotic medication
Doses prescribed are given as percentage of BNF recommended maximum dose.

co-prescription of amisulpride with clozapine (irrespective of whether the patient is currently in remission or not in remission). However, while there has been a similar 25% increase in the co-prescription of aripiprazole for patients currently not in remission, there has been a 73% increase in co-prescription for patients currently judged to be in remission. It is impossible to say from the data available to us whether this is to try to improve clinical response or to mitigate weight gain.

Trusts where the use of polypharmacy for patients not on clozapine is high are not necessarily the same as those where use of polypharmacy is high for patients on clozapine. Of the ten Trusts with the highest rates of polypharmacy for patients not on clozapine only two are also among the ten Trusts with the highest rates of polypharmacy for patients on clozapine.

Standard 6: Doses of antipsychotic medications prescribed and high dose prescribing

Evidence from clinical trials supports the effectiveness of antipsychotic drugs in the treatment of psychosis. The main NICE guideline on psychosis and schizophrenia recommends that the range of doses prescribed should be within the dose range given in the BNF (NICE CG178, 1.3.6.3). There is no evidence to suggest that doses above the recommended BNF maximum dose are more effective than doses within the recommended dose range (Royal College of Psychiatrists, 2014).

Standard 6

The current total daily dose of antipsychotic drug does not exceed the upper limit of the dose range recommended by the BNF. If it does, the rationale for this has been documented.

This audit collected information on the current doses of all antipsychotic medications prescribed. These doses were then converted to a percentage of BNF maximum dose – e.g. if a patient is receiving 400 mg per day of a drug for which the 'BNF maximum' is 800 mg per day, then they are receiving 50% of BNF maximum. If a patient is receiving more than one antipsychotic drug, or an oral and depot/LAI version of the same drug, it is convention to calculate the percentage of 'BNF maximum' at which each drug or preparation is being prescribed and then add these percentages together to obtain an overall 'percentage of BNF maximum' for that patient. Patients being prescribed doses above 100% of 'BNF maximum' are regarded as receiving *high dose prescribing*.

There are occasional situations where a patient with treatment unresponsive illness may be given a trial of a dose higher than the BNF maximum for a specified period. In such situations it is expected that the prescribing clinician will clearly document the rationale for this in the case record and will have discussed this with the patient.

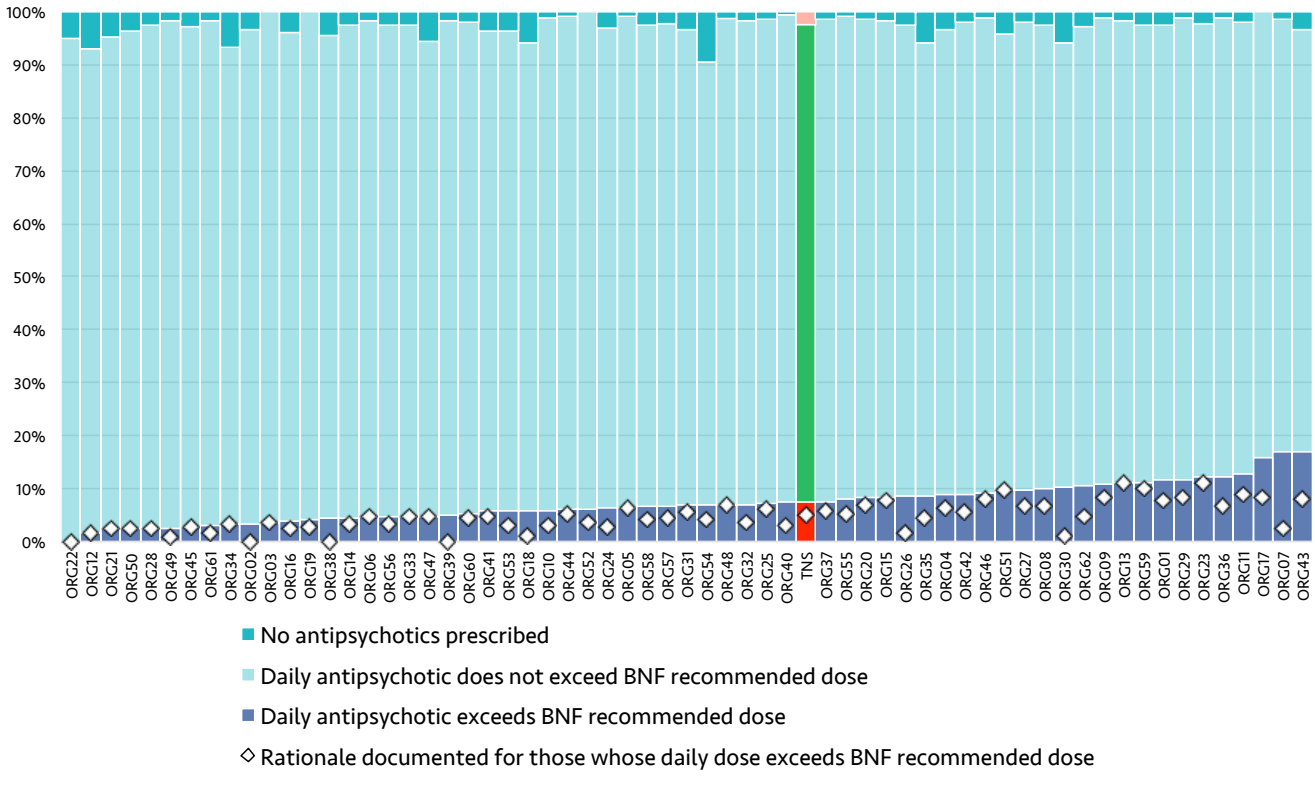


Figure 25: Antipsychotic prescribing across Trusts – dose. Prescriptions above 100% of BNF maximum (n=7,773)

Figure 25 shows that an overall average of 90% of patients were being prescribed antipsychotic treatment within BNF limits, 2% were not receiving any antipsychotic medication and 7.5% were being prescribed doses above 'BNF maximum', i.e. they were receiving high dose prescribing. Of those patients receiving high dose prescribing, 66% had a rationale for this recorded in their case records. The range across Trusts for high dose prescribing was from 0% to 17% of patients. This represents an improvement from NAS2, in which 10% of the equivalent sample were receiving high dose prescribing, with a range from 1% to 22% of patients across Trusts.

Table 17 (page 42) suggests that the use of polypharmacy is a practice associated with patients being likely to receive higher doses of antipsychotic medication, with the upper end of the dose ranges prescribed being higher than for monotherapy (apart from two LAIs, which was likely to be patients switching from one LAI to another LAI). In those regimens where three antipsychotics are prescribed, the mean total dose was either close to or above 100% BNF. Combination of two non-clozapine oral antipsychotics resulted in a mean total dose of 104% BNF. Most other combinations of two antipsychotics resulted in a mean total dose higher than those reported for any groups involving prescription of a single antipsychotic medication.

Standards 3, 4, 5 and 6: Comparison of the findings for prescribing from NCAP with those from NAS2 and NAS1

Table 18 shows a summary of key comparisons between the findings in this third round of the audit (NCAP) versus the findings from the previous two audits (NAS1 and NAS2), shown as percentages. Some of the percentages shown for NAS1 and NAS2 may differ slightly from those in the original reports as these have been recalculated to exclude those patients who were attending EI teams, as these patients were not included in NCAP.

Overall, these results show that provision of written (or other appropriate format) information has deteriorated. However, the results show that compared to NAS2, actual prescribing practice has improved with a modest reduction in polypharmacy for non-clozapine antipsychotic drugs and a reduction in high dose prescribing. Though polypharmacy with clozapine has increased this appears to be due to increased co-prescription of either amisulpride or aripiprazole. To understand the reasons for this would require a separate very specific audit. However, amisulpride is often used in attempts to improve clinical response and aripiprazole to mitigate weight gain – both legitimate reasons, in the appropriate circumstances, and if properly discussed with the patient.

Table 18: Comparison of NCAP with NAS2 and NAS1 for prescribing practice (Standards 3, 4, 5 & 6)

Indicator	NCAP %	NAS2 %	NAS1 %
Provision of written (or other appropriate format) information about current antipsychotic drug	30	37	43
Record that patient was involved in the prescribing decision	65	55	62
Record of discussion of benefits and adverse effects	79	66	76
Frequency of polypharmacy for those on non-clozapine drugs	10	13	11
Frequency of polypharmacy for those on clozapine	9	8	5
Frequency of high dose prescribing	7.5	10	10
Rationale documented where high dose is prescribed	66	37	25

Management of patients with inadequate response to treatment

This section will present and discuss findings for Standards 7 and 8, covering aspects of the management of patients who have not demonstrated a good response to treatment (i.e. are not in remission) and aspects of clozapine prescribing. Detail relating to each Standard will be described at the beginning of each sub-section.

Standard 7: Management of inadequate response

A significant proportion of people with a psychotic illness or schizophrenia will not have a good response to treatment. For the purposes of this audit, clinical staff in the Trusts were asked to rate each patient's current mental health according to the definitions in the left-hand column of Table 19 below.

Table 19: Classification system for degree of clinical response

Current clinical response	NCAP grouping for subsequent analysis
Full remission	Regarded as 'in remission'
Partial remission with minimal symptoms and disability	
Partial remission with substantial symptoms and disability	Regarded as 'not in remission'
Not in remission	

The *number of patients regarded as not in remission was 1,872 (24% of the NCAP community sub-sample)*, of whom 55 were not currently prescribed any antipsychotic medication. Thus, 1,817 patients taking an antipsychotic were *not in remission*.

Poor adherence with prescribed medication, misuse of alcohol and substance misuse can all be important contributors to poor clinical response. The main NICE guideline on psychosis and schizophrenia recommends that these possibilities should be considered if there has not been adequate response to pharmacological and/or psychological treatment (NICE CG178, 1.5.7.1).

Standard 7

If current response to treatment is inadequate:

- i. Medication adherence has been investigated and documented
- ii The potential impact of alcohol or substance misuse on response have been investigated and documented.

Table 20 shows the numbers of patients *not in remission*, but currently prescribed antipsychotic medication (n=1,817). Medication adherence has been investigated in 1,356 (75%) patients and alcohol/substance misuse have been investigated in 1,242 (68%) patients. Clearly, for a large number of patients, information regarding relatively simple issues is not being recorded; though there has been some improvement from NAS2.

In NAS2, for the equivalent sample of patients, 67% had medication adherence investigated and 58% had alcohol/substance misuse investigated.

Table 20: Patients not in remission, currently prescribed antipsychotic medication, for whom medication adherence or alcohol/substance misuse has been investigated (n=1,817)

	Investigation in those patients on antipsychotic medication	
Patient care issue	Yes	No
Medication adherence has been investigated	1,356 (75%)	461 (25%)
Alcohol and substance misuse have been investigated	1,242 (68%)	575 (32%)

Another important issue in deciding further action for patients who are *not in remission* is whether they are receiving an optimum dose of their current antipsychotic medication. Table 21 presents the findings relating to this for those patients *not in remission*, who are not currently prescribed clozapine. The data are presented using two sources: (a) responses from the Trusts to Question 20 (in the audit of practice form) stating that they regarded the patient as being on an optimum dose and (b) applying a criterion, used in some other audits, that an optimum dose of medication for a patient not in remission should be at least 75% of BNF maximum dose. In each case, in Table 21, the percentages are presented as a percentage of the number of patients currently prescribed an antipsychotic, who are not in remission and are not on clozapine (n=1,325).

Table 21: Proportion of patients not in remission who were receiving their current medication at optimum dose, excluding patients on clozapine (n=1,325)

Source of record of 'optimum dose'	n (%)
(a) Patients reported by Trusts as being prescribed an optimum dose (Q.20)	1,002 (76)
(b) Patients whose reported dose of antipsychotic was in the range ≥ 75% to 100% of BNF maximum	408 (31)
(c) Patients whose reported dose of antipsychotic was >100% of BNF maximum	157 (12)

The proportions found will inevitably differ between these two sources. It would appear that between 43% and 76% of patients *not in remission* may have received optimum antipsychotic treatment. Some patients may not have been able to tolerate doses above 75% of BNF maximum and thus be on a lower dose. For some patients, at some point in their history, there may have been an unsuccessful previous trial of treatment at doses in the 75% to 100% range, which was then abandoned with subsequent decrease in dose. It is also evident that 12% of these patients are receiving *high dose prescribing*, despite the lack of evidence that this is a clinically effective strategy. However, the data in Table 21 do provide some broad indication of how appropriate current prescribing is for patients *not in remission*.

Greater detail could only be provided through a local audit, within a Trust; or an audit of patients attending EI teams, for whom the history of prescribing will be relatively recent and accessible.

Standard 8: Clozapine prescribing

The NICE guideline also recommends that patients who have not responded adequately after trials of at least two different antipsychotic medications should be offered clozapine (NICE CG178, 1.5.7.2).

Standard 8

If the patient is currently not in remission and has received trials of two (or more) antipsychotic drugs then there should be evidence that a treatment trial of clozapine has been considered and/or given. If, in these circumstances, clozapine is not being prescribed then a rationale for this should have been documented at an appropriate place in the patient's records.

Of the 1,872 patients who were *not in remission*, 1,380 (74%) were *not currently being prescribed clozapine*. The equivalent percentages for NAS1 and NAS2 were 74% and 73% respectively.

In this audit we have not addressed in detail the question of previous trials of non-clozapine antipsychotic medications, prior to considering clozapine, for a patient *not in remission*. The two previous audits (NAS1 and NAS2) considered this issue in some detail and it is unlikely that a further examination in NCAP would have revealed any significant change. This is because these three audits have examined care from random samples of all eligible patients attending Trusts. The patients included in these samples have mean ages of 45 years, 46 years and 47 years for NAS1, NAS2 and NCAP respectively. Most patients in these samples have been ill for more than 10 years. Most decisions regarding clozapine treatment were made many years before these audits were carried out and that data will not be changed by any subsequent improvements in practice. Most changes in practice regarding initiation of clozapine are likely to be found from examination of the early years of patients' illnesses. Patients in the early stages of illness made up only 5%–10% of the NAS1 and NAS2 audit samples. Patients attending EI teams were specifically excluded from this audit.

Information was, however, collected on *all* the reasons given as to why patients *not in remission* had not had a trial of clozapine, including the reason discussed above. These data are shown in Table 22. This shows that *not yet having had an adequate trial of two other antipsychotics* was a reason given for 9% of patients and *inability to determine if a patient had had adequate trials of other drugs* was a reason given for 3% of patients – hence a total of up to 12% of patients who may not yet have had adequate trials of other antipsychotics. The equivalent percentages for NAS1 and NAS2 were 15% and 13% respectively.

Such data are likely to be different from those which might be obtained by examining in detail the prescribing history of each patient. This can best be achieved by examining such issues in patients in the first few years of illness, which is also the stage during which consideration of clozapine is most likely to become clinically indicated.

For those patients *not in remission* and *not on clozapine* (n=1,380), Table 22 lists the reasons for them not currently receiving clozapine. Some of these reasons are clearly appropriate, but 733 (53%) patients did not have any appropriate reason recorded for not having had a trial of clozapine.

Aside from failure to provide any reason, the most common, potentially inappropriate reason for not commencing clozapine, was 'fears of poor compliance'. This was also the most common reason put forward in NAS2. While poor compliance can clearly be a problem in trying to establish someone on clozapine it can also be the case that if clozapine improves the individual's mental state this may then result in improved adherence with treatment. Clearly, clinicians must balance risk and potential benefits carefully in clinical situations where compliance may be a problem. However, the information provided to the audit suggest this may be being used too commonly as a reason for not commencing a trial of clozapine.

Abuse of alcohol and/or other substances is another commonly provided clinical reason given for not commencing clozapine. Again, consideration needs to be given as to whether clozapine may help to reduce these problems and whether a trial of treatment should be attempted.

The high numbers of patients for whom no reason was provided for failure to commence a trial of clozapine probably highlights difficulties in finding this information in the case records. This emphasises the need to have some form of updated, Annual Summary of Care where such information can easily be found. If a patient's place of residence changes or if mental health team members change then important information such as this needs to be readily available.

Table 22: Reasons provided for failure to prescribe clozapine for patients who were not in remission (n=1,380)

Reason	number of instances*	% of cases not on clozapine
Reasons that may be considered as appropriate		
Clozapine not licensed for this diagnosis **	6	0.4
Clozapine offered but patient refused	240	17
Clozapine tried: poor response or had adverse effects	152	11
Clozapine is medically contraindicated for this patient	75	5
Not yet had adequate trial of two other antipsychotics	129	9
Ongoing anxiety and depression but not psychotic symptoms	37	3
Short-term relapse	37	3
Work-up for clozapine in progress	7	0.5
Other (appropriate reason)	4	0.3
Reasons that may not usually be considered as appropriate		
No reason indicated	372	27
Fears of poor compliance with treatment	367	27
Fears about abuse of alcohol or other substances	114	8
Unable to determine if had adequate trials of other drugs	44	3
Lack of service for community initiation	9	1
Waiting for an inpatient bed	2	0.1
Trust/Health Board restrictions on use of clozapine	2	0.1
Other	12	0.9

*The column 'number of instances' will add up to more than the number of patients (n=1,380) because Trusts could provide more than one reason per patient.
**These patients all have a diagnosis of schizo-affective disorder.

Standards 7 and 8: Comparison of the findings for NCAP with those from NAS1 and NAS2

Table 23 shows a summary of key comparisons between the findings in this third round of the audit (NCAP) versus the findings from the previous two audits (NAS1 and NAS2). These are shown as percentages. Some of the percentages shown for NAS1 and NAS2 may differ slightly from those in the original reports as these have been recalculated to exclude those patients who were reattending EI teams, as these patients were not included in NCAP.

Table 23: Comparison of NCAP with NAS2 and NAS1 for inadequate response and clozapine (Standards 7 & 8)

Indicator	NCAP %	NAS2 %	NAS1 %
Medication adherence has been investigated	75	67	86
Alcohol and substance misuse have been investigated	68	58	79
Patients not in remission and not on clozapine without an appropriate reason	53	24	41

STANDARD 9

Psychological therapies

Two evidence based psychological interventions, Cognitive Therapy for Psychosis (CBTp) and family intervention, are recommended by NICE for people with psychosis and schizophrenia (NICE CG178, 1.3.4.1, 1.3.7.1, 1.3.7.2, 1.3.9 and 1.4.4.1). These recommendations cover the general requirements for a suitable programme of therapy, the training competencies for appropriate forms of CBT and a requirement that, at some stage of illness, all people with schizophrenia should have been offered an appropriate form of CBT.

Standard 9

- (i) CBTp has been offered to all patients
- (ii) Family intervention has been offered to all patients who are in close contact with their families.

In 2012 a programme was established to improve access to psychological therapies for people with severe mental illnesses such as schizophrenia (IAPT-SMI). The IAPT-SMI programme developed six demonstration sites and staff training programmes. The aim was to improve the availability of CBTp, a specific form of CBT requiring specified training of the staff delivering it, and to explore aspects of how to deliver this. The numbers of training places available remain somewhat limited and, in most Trusts, most of the appropriately trained staff are attached to EI teams. There is also a cohort of Clinical Psychologists who gained the relevant competencies through what are best termed 'grandparenting arrangements', e.g. being trained in generic CBT but also having considerable experience in the delivery of CBT to patients with schizophrenia (often with supervision from a trained CBTp therapist) or having gained experience from involvement in research programmes on CBTp.

Standard 9(i): CBTp

In the audit of practice form, two questions were asked regarding whether patients had been offered CBT. The first (Question 39) asked whether CBTp, delivered by a competent therapist, had been offered to the patient. For patients who had not been offered CBTp, a second (Question 41a) asked whether the patient had been offered some other form of CBT that did not conform to the guidelines laid out in the NICE guideline (CG178). This second question was asked because many Trusts have therapists who can offer CBT but who do not meet the required competencies for delivery of CBTp.

Figure 26 shows that an overall average of 26% of patients, across Trusts, were offered CBTp. There was a wide range across Trusts from 3% to 77%. Of those patients who were offered CBTp (n=2,043), the offer was taken up by 1,056 (52%) patients (white diamonds).

Where CBTp was not offered (n=5,730), data were collected regarding availability of a suitably qualified therapist. Figure 27 shows that a suitably qualified therapist was available in 45% of such situations, not available in 19% and in 36% of instances it was not known. One conclusion from these data is that lack of sufficient numbers of suitably trained staff in Trusts may be an important reason for failure of delivery of CBTp. This could also, in part, explain why CBTp is not offered, even when available, though this may also occur because of a lack of awareness within some teams that CBTp should be offered to all patients.

In NAS2 only a single question, which did not specify any particular type of CBT, was asked about CBT, and which thus included patients offered CBTp as well as those offered less clearly specified forms of CBT. An average

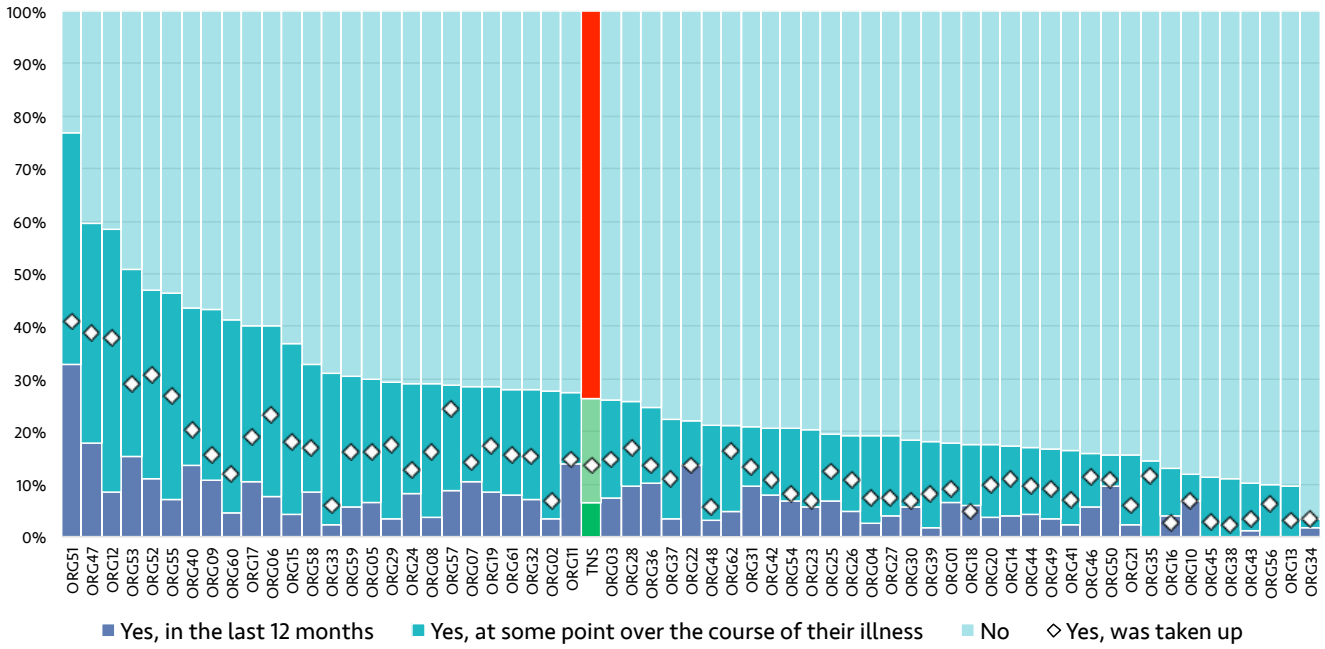


Figure 26: Percentage of patients across Trusts who have been offered CBTp (n=7,773)

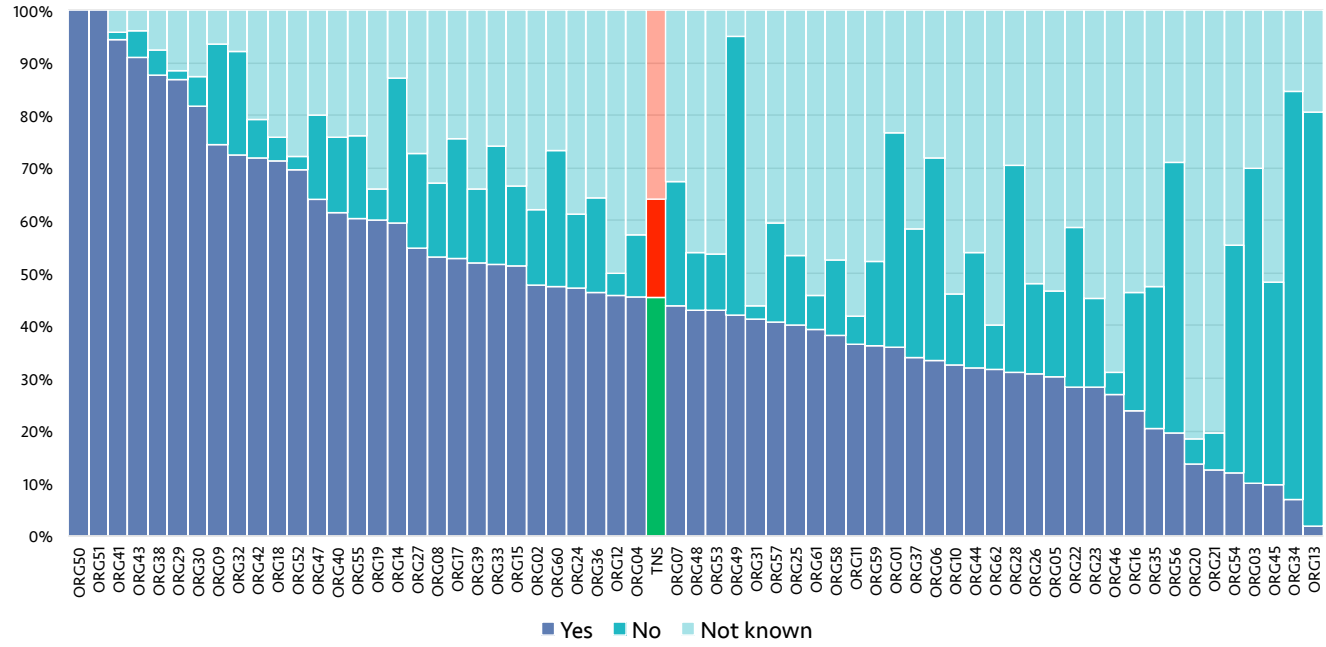


Figure 27: Availability of a competent CBTp therapist where CBTp NOT offered (n=5,730)

of 38% of patients had been offered CBT in NAS2. The question asked in NAS1 does not provide comparable information.

The data in Figure 28 show that an average of 13% of patients who had not been offered CBTp (n=5,730) were offered another, less specified, form of CBT. Of the 735 patients who were offered 'other' CBT, 341 (46%) took up the offer.

If the number of these patients (n=735) is added to the number who were offered CBTp (n=2,043), then a total of 2,778 (36%) patients in the NCAP community sub-sample were offered some form of CBT, which can be compared with the 38% found in NAS2, in which the form of CBT offered was not specifically defined.

Standard 9(ii): Family intervention

Of the 7,773 patients in the NCAP community sub-sample, 1,039 patients (13%) were recorded as not in contact with their families and 175 patients (2%) refused to allow their clinical team to contact their family. Across Trusts, therefore, 6,559 (84%) patients were regarded as being in contact with their family and eligible to be offered family intervention. Of these patients in contact with their families, 771 (12%) were offered family intervention (Figure 29). For 2,588 (39%) patients, family intervention was not offered because it was not seen as appropriate for the patient (marked N/A in Figure 29). For 3,200 (49%) there was no record of family intervention being offered.

In NAS2 18% of all patients were offered family intervention (in NAS2, though Trusts were asked to respond regarding family intervention only if the patient was in

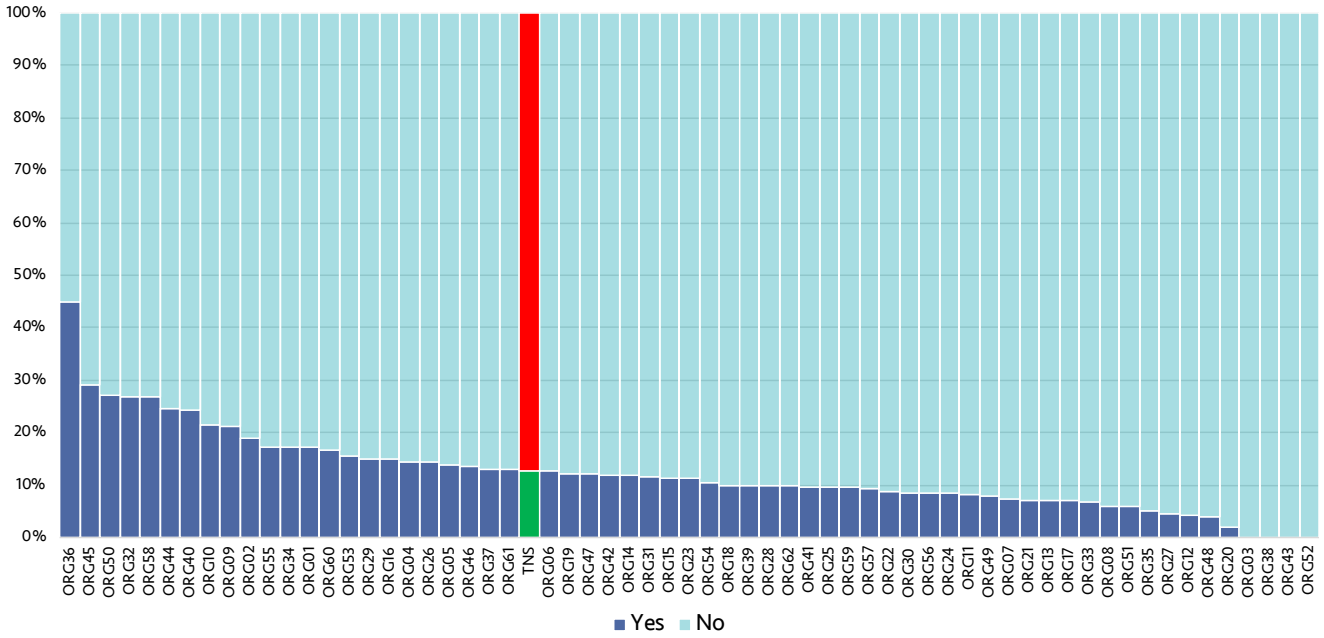


Figure 28: Percentage of patients who were not offered CBTp but who were offered some other form of CBT (n=5,730)

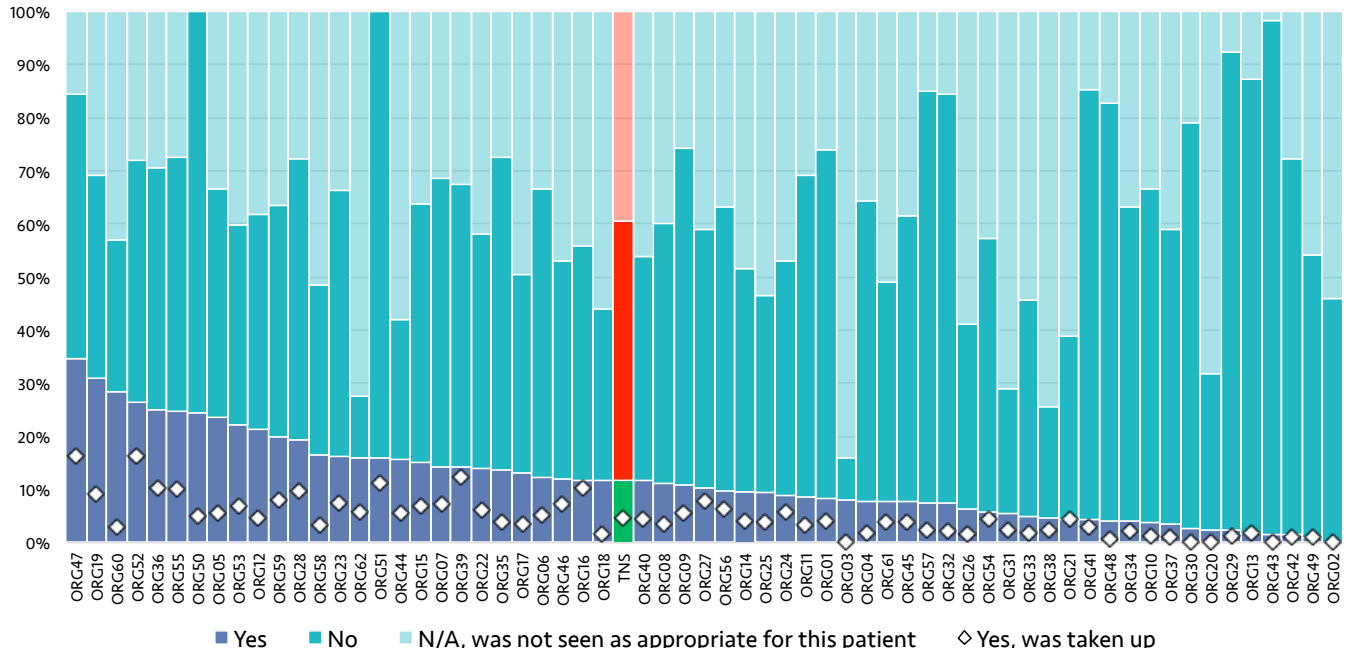


Figure 29: Percentage of patients across Trusts, in contact with their family, who have been offered family intervention (n=6,559)

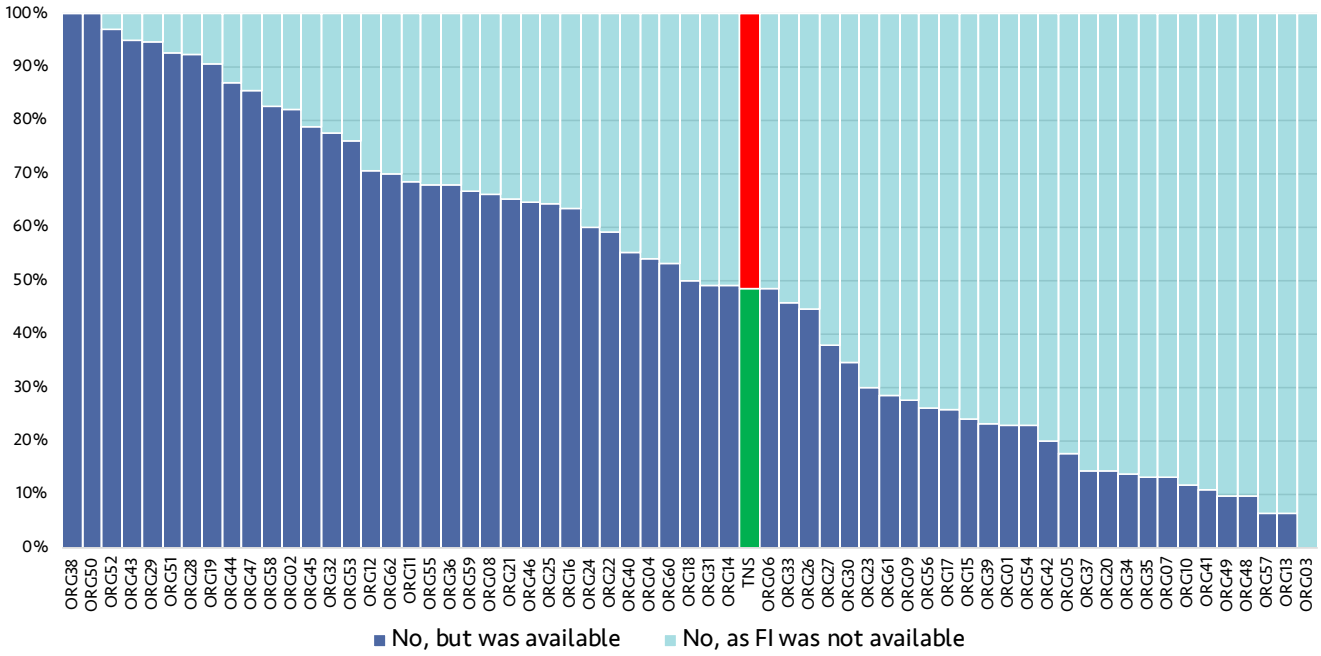


Figure 30: Availability of family intervention for patients to whom it was NOT offered ('not appropriate' and 'lack of contact' cases excluded; n=3,200)

contact with the family, in fact Trusts provided responses for all but 11 patients). The percentage of all patients in NCAP who were offered family intervention was 10%.

Of those patients offered family intervention, 303 (39%) took up the offer (white diamonds in Figure 29), the same proportion as found in NAS2. Where an offer of family intervention was not taken up, 14% of refusals were by the patient, 13% were by the family and for 5% of cases various miscellaneous reasons were given. For 29% of cases no reason was recorded.

For 1,651 (21%) patients family intervention was not offered because it was not available and for 1,549 (20%) it was available but was not offered. The distribution of these 3,200 cases across Trusts is shown in Figure 30, which shows considerable variation from 0% to 100% for availability in cases where family intervention was not offered.

Standard 9: Comparison of the findings for psychological therapies from NCAP with those from NAS1 and NAS2

Table 24 shows a summary of comparisons between the findings in this third round of the audit (NCAP) versus the findings from NAS2. These are shown as percentages. Some of the percentages shown for NAS2 may differ slightly from those in the original reports as these have been recalculated to exclude those patients who were attending EI teams, as these patients were not included in NCAP. The NAS1 findings are not comparable with NCAP as data was only collected for patients who had not responded well to their overall treatment package.

Since the last round of the audit, there has been no improvement in the proportion of people with psychosis being offered some form of CBT and only 26% have been offered CBTp, the most appropriate form. It is not possible to say whether offers of CBTp have changed since NAS2. In the recent national audit of Early Intervention for Psychosis services (AEIP, 2016) 41% of patients with psychosis or suspected psychosis were offered CBTp.

The apparent reduction in offers of family intervention may, in part, be because the requirements for 'family intervention by a suitably qualified therapist' were more clearly specified for this audit than was the case for NAS2.

Table 24: Comparison of NCAP with NAS2 and NAS1 for psychological therapies (Standard 9)

Indicator	NCAP %	NAS2 %	NAS1 %
Patients offered CBTp	26	n/a	n/a
Patients offered some form of CBT	36	38	n/a
Patients in contact with their family offered family intervention	12	(18*)	n/a

n/a, no available data
*NAS2 data are not fully comparable as it included patients not in contact with their families (see page 51).

STANDARDS 10 & 11

Care plan and crisis plan

The main NICE guideline on psychosis and schizophrenia recommends that a care plan should be written as soon as possible after assessment and should be written in collaboration with the patient (NICE CG178, 1.3.3.4). A copy of this care plan should be given to the primary care team and to the patient. This guideline also indicates that the care plan should contain a section relating to crisis planning (NICE CG178, 1.5.3.6).

Standard 10

Each patient has a current care plan

Standard 11

There is evidence that each patient has been given information about how to contact services in a crisis.

Figure 31 shows an overall average of 93% for the existence of a care plan in the patients' case records. In NAS2 the percentage was 95%. This question was not included in NAS1.

In this audit we have assessed Standard 11 by asking if details about how to contact services in a crisis were included in the care plan. Figure 32 shows that an overall average of 88% of care plans included these details. In NAS2 this aspect was approached through a question in the survey of patient experience ('Do you know how to get help in a crisis?'), to which 74% indicated that they had a telephone number to ring. This question was not included in NAS1.

Table 25 shows a summary of the comparisons between findings in NCAP and NAS2.

As we were unable to conduct a survey of patient experience for this audit, we are not able to report whether patients received a copy of their care plan or were properly aware of whom they should contact in a crisis and could not make comparisons with similar data collected in NAS2. These are important issues which would benefit from a survey of patient experience.

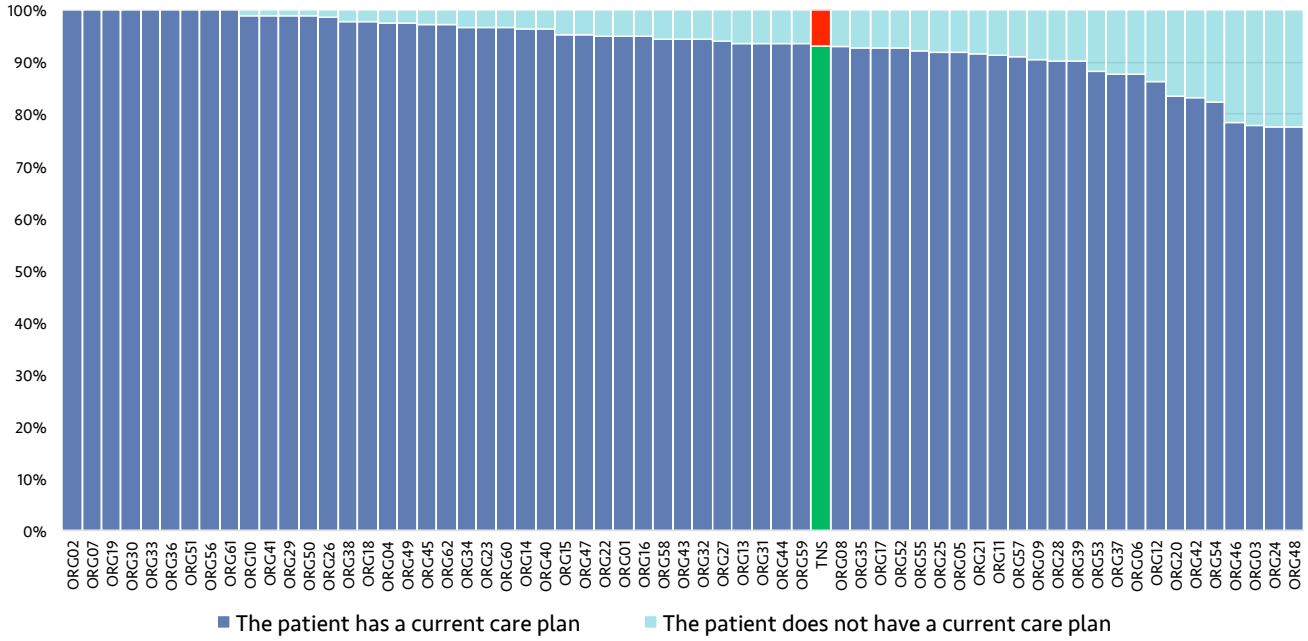


Figure 31: Percentages of patients across Trusts who have a care plan (n=7,773)

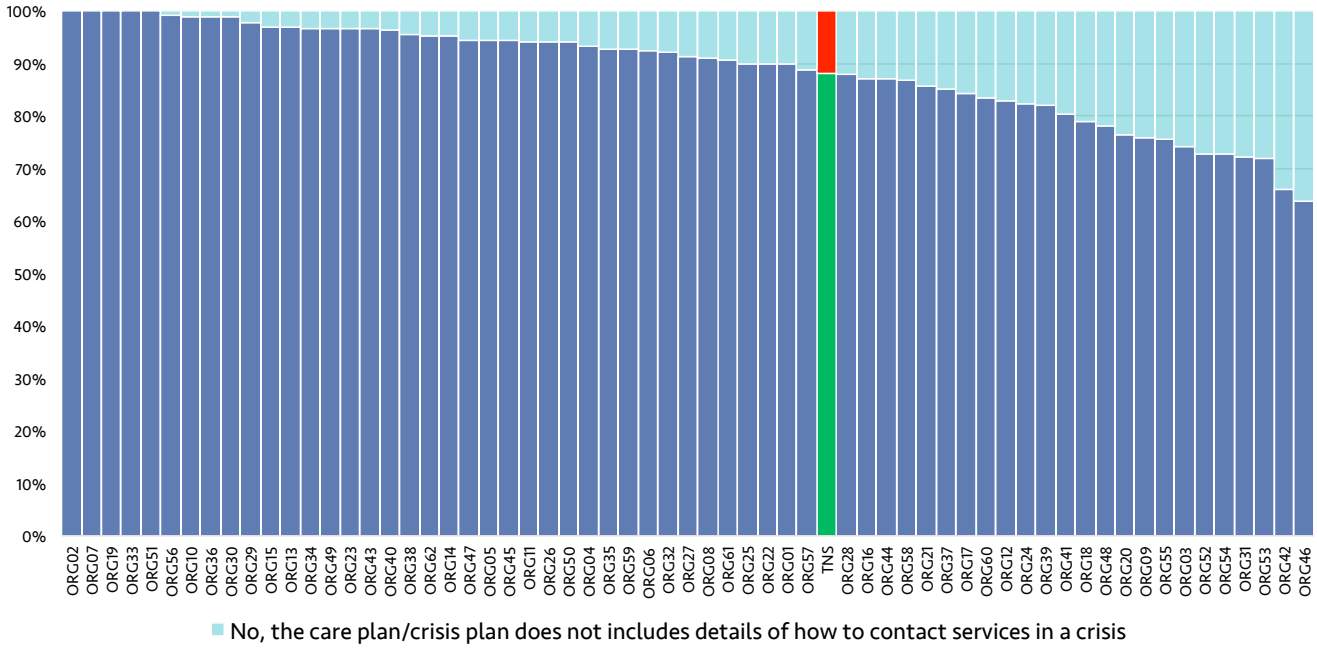


Figure 32: Percentages of patients across Trusts whose care plan includes details of how to contact service in a crisis (n=7,773)

Table 25: Comparison of NCAP with NAS2 and NAS1 for availability of a care plan and inclusion of details about a crisis plan (Standards 10 & 11)

Indicator	NCAP %	NAS2 %	NAS1 %
Each patient has a current care plan	93	95	n/a
Information in care plan about crisis contact	88	(74*)	n/a
*Assessed differently in NAS2 and not directly comparable.			

STANDARD 12

Assessment of needs of carers

The NICE guideline on psychosis and schizophrenia expects Trusts to offer carers an assessment of their own needs (NICE CG178, 1.1.5.1) and notes that carers can formally request that this is carried out.

Standard 12

All carers have had their needs assessed.

In this audit, Trusts reported that n=4,303 (55%) patients in the NCAP community sub-sample did not have a carer. Of those who did have a carer (n=3,470), there was a record that the carer's need had been assessed for 1,908 (55%) cases. Figure 33 shows the performance across Trusts on this standard. No comparable data were collected in NAS2 and NAS1.

While the provision of formal family intervention is clearly important, where the family is in contact with the patient and both agree, for many families what is most important is recognition and assessment of their needs. *It is important to note that* in Figure 33, the fact that a very large proportion of patients do not seem to have a carer makes interpretation difficult. Performance is measured by the ratio of the height of the 'dark blue' section of a Trust's bar to the height of the 'turquoise' section of the bar, which cannot be presented graphically when also showing each Trust's proportion of patients with no carer. Performance is *not* the height of each Trust's 'dark blue' bar.

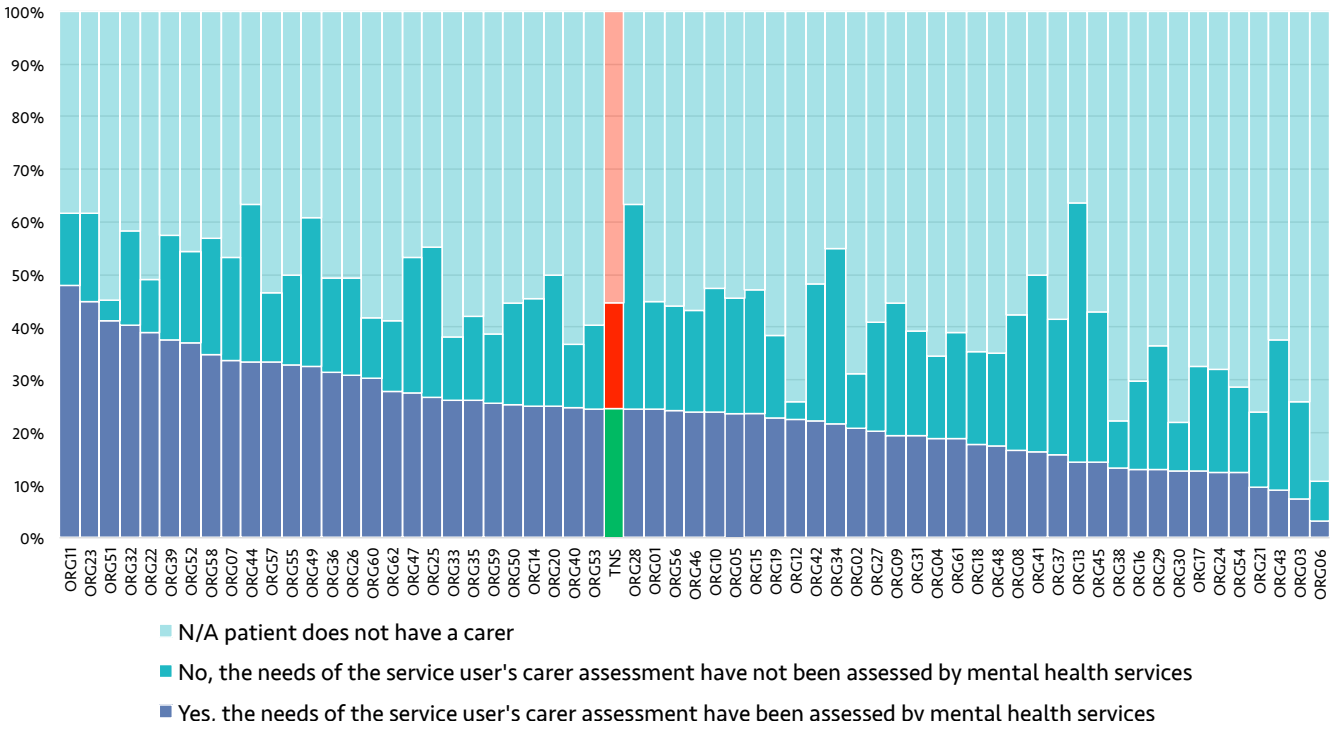


Figure 33: Assessment of carer's needs across Trusts (n=7,773)

Outcome indicators

This section deals with findings relating to outcomes. In a cross-sectional audit, particularly one that includes patients with a long history of illness, it is not always feasible to investigate changes in clinical symptoms or changes in social functioning, in response to interventions, as symptoms and functioning may have been relatively static for many months or years. For patients with more recent onset of illness this is feasible, using data from sequential clinical assessments with, for example, a scale such as the Health of the Nation Outcomes Scale (HoNOS). Other aspects of outcomes are best assessed using a survey of individual patient experience, which was not possible for this audit.

For NCAP we were able to collect information regarding current employment, an important aspect of patient outcome. Allied to this, we were able to access information about support towards employment.

HoNOS scores were also requested for each patient. While useful for examining changes in symptoms and behaviours, when used sequentially, HoNOS can provide useful information regarding whether certain aspects of a patient's current clinical state and circumstances may require intervention. For NCAP we extracted information regarding living conditions, another aspect of outcome.

Employment and support towards employment

The NICE guideline on psychosis and schizophrenia regards returning patients to education, training or employment as an important aspect of outcomes.

Outcome indicator

The proportion of people who are employed or involved in voluntary work or education.

Assessment of education and/or employment status is expected from the outset of a patient's care (NICE CG178, 1.3.3.1). Trusts are expected to monitor functioning, including in relation to employment, and to facilitate return to employment (NICE CG178, 1.3.3.5, 1.3.4.2, 1.5.8.1). This guidance is supported by Quality Statement 5 in the NICE Quality Standard on psychosis and schizophrenia (QS80).

Question 47 in the audit of practice form asked the Trusts to report each patient's current employment or education status. The findings are summarised in Table 26.

Table 26 shows that 817 (11%) of patients were involved in some form of work or study related activity outside

Table 26: Current employment or education status for the NCAP community sub-sample. (n=7,773)

Employment/education status	n	%
Long-term sick or disabled receiving benefits	4,527	58
Not working or actively seeking work	1,189	15
Unemployed and seeking work	493	6
Employed	427	6
Homemaker not working or actively seeking work	99	1
Student who is not working or actively seeking work	80	1
Unpaid voluntary work and not working or actively seeking work	310	4
Retired	211	3
Not stated	437	6

the home (*employed/student/unpaid voluntary work*). In NAS2, 10% reported that they had a job, though in NAS2 this was assessed through a survey of patient experience rather than through information from the Trust.

Figure 34 shows the variation, across Trusts, of the proportion of the NCAP community sub-sample who were engaged in activity outside the home. This is contrasted with the proportion of those who were not working or were regarded as unable to work (i.e. the sum of those who were *long-term sick or disabled/not working or actively seeking work/unemployed and seeking work*). Patients who were regarded as *homemakers not seeking work* or who were *retired* were excluded from Figure 34.

Figure 34 shows variation across Trusts from 0% to 29% for meaningful daytime activity outside the home. This suggests that for large numbers of patients, who are either not seeking work or who are regarded as having long-term disability, there may be a low level of ambition in many Trusts regarding rehabilitation towards a potentially more fulfilling life.

Figure 35 shows that only 46% (n=225) of those patients who were unemployed and seeking work were receiving some form of support towards this goal. Only 70 of these patients were receiving support through the recommended Individual Placement and Support approach. NAS2 collected comparable information through the survey of patient experience, in which 48% of patients who were looking for a job responded: '*I do not have a job, but I am getting help to find one.*'

For 40% of those who were *unemployed and seeking work*, the case records did not record what steps might have been considered. Thus, even for those people seeking work, the provision of support is inadequate.

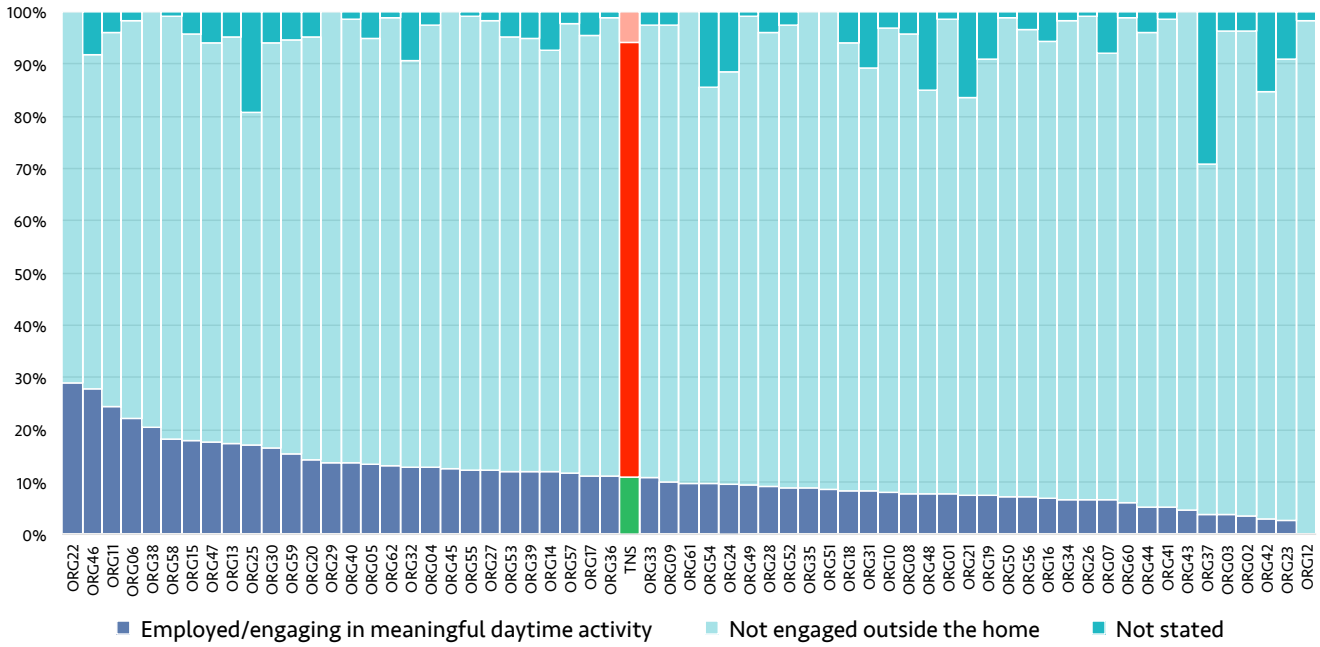


Figure 34: Proportion of patients, across Trusts, who were employed or engaged in daytime activity outside the home contrasted with those who were long-term sick, not working or unemployed and seeking work (n=7,463 patients included; homemakers and retired patients were excluded)

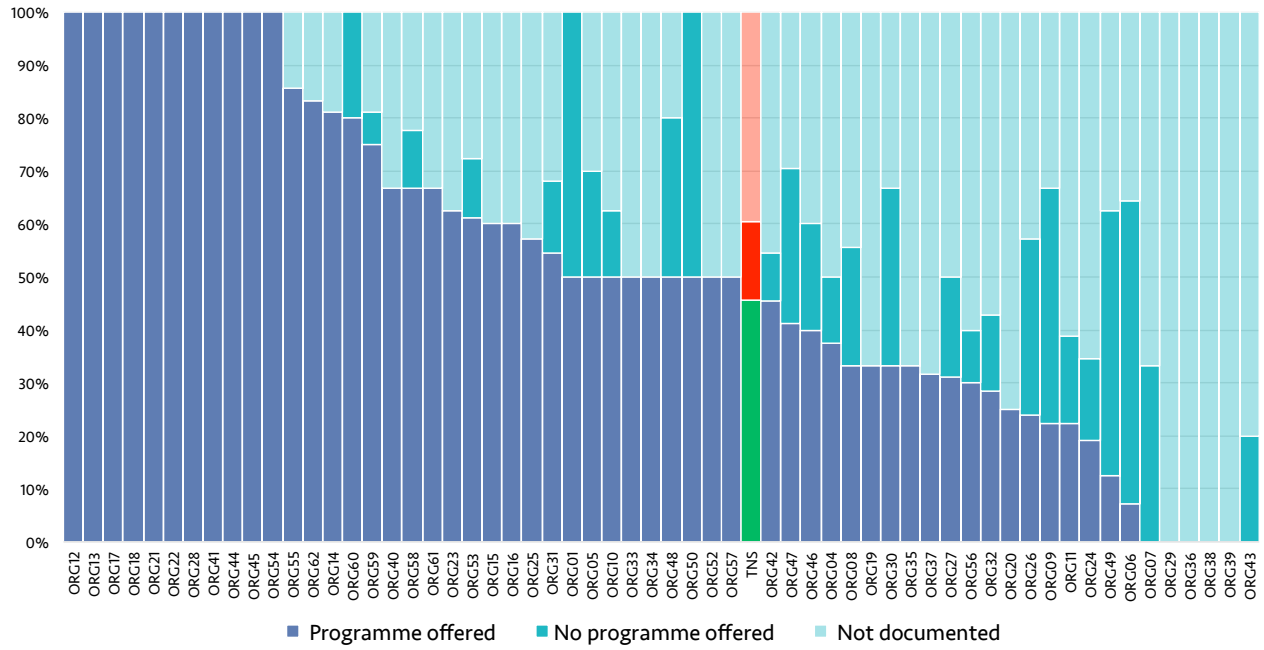


Figure 35: Proportion of patients, across Trusts, offered support if seeking work (n=493)

Completion of HoNOS

Trusts were asked to supply data from a HoNOS completed for each patient during the previous 12 months. This was provided for 69% of patients from the complete audit sample (n=9,449). Thus, if Trusts were encouraged to make more use of HoNOS, it would appear to be feasible to use HoNOS to collect clinical outcome information.

Item 11 of HoNOS is used to assess how well a patient's current living environment matches their needs. If a patient has a good 'outcome' in terms of living environment, then they should have a score of '0' or '1' on the five-point HoNOS scale, indicating either 'no problem' or a 'minor problem requiring no action'. Figure 36 shows the findings, across Trusts, from the HoNOS Item 11 returns for the NCAP community sub-sample of patients with schizophrenia and schizo-affective disorder for whom there were n=5,355 HoNOS returns (69% of the NCAP community sub-sample).

Figure 36 shows that an overall average of 82% of patients were regarded as having either 'no problem' or only a 'minor problem requiring no action' with their living conditions. However, there was a range from 54% to 100% across Trusts, suggesting that performance in the provision of appropriate accommodation may vary considerably across England and Wales.

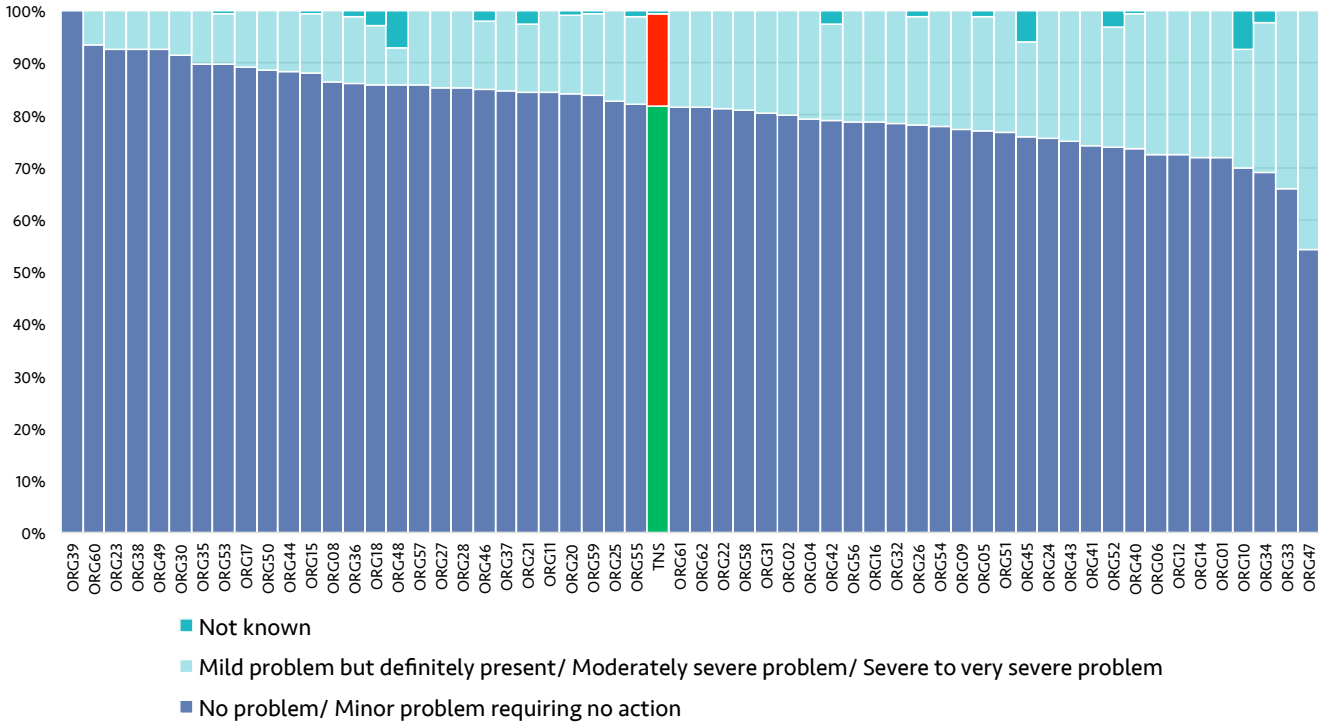


Figure 36: Assessment of patients' living conditions (using HoNOS item 11 score) across Trusts (n=5,355)

Sub-sample of inpatients

This sub-sample of patients (n=689), who were in hospital on the census date for the audit, is too small to allow meaningful comparisons between Trusts, as have been presented for the large NCAP community sub-sample. Table 27 shows the profile (age, gender, diagnoses and ethnic profile) of these patients in comparison with that for the complete NCAP audit sample (n=9,449).

This sub-sample is made of 650 general psychiatry inpatients and 39 forensic ward inpatients. The findings for the quality of their care are presented in Tables 28 and 29, showing overall averages for each indicator. The findings are presented for the whole sub-sample and also for only those patients with a diagnosis of schizophrenia or schizo-affective disorder, who make up 93% of this sub-sample, so that the findings for this group can be directly compared with those from the NCAP community sub-sample.

The demographic and diagnostic profile of the inpatient sub-sample was more or less identical to that of the complete NCAP audit sample (n=9,449). For examination of their quality of care, against the audit standards and indicators, this sub-sample is compared with the results for the NCAP community sub-sample (n=7,773), for whom detailed analysis was described in earlier

Table 27: Profile of patients (age, gender, diagnosis, ethnic profile) in the NCAP inpatient sub-sample (n=689)

Parameter	Inpatient sub-sample (n=689)	Complete audit sample (n=9,449)
Mean age	42 years	46 years
Age range	18–77 years	18–90 years
Male/Female (%)	73%/26%*	66%/34%**
Diagnosis	n (%)	n (%)
Schizophrenia (F20)	496 (72)	6,810 (72)
Schizo-affective disorder (F25)	146 (21)	1,605 (17)
Unspecified non-organic psychosis (F28/29)	30 (4)	542 (6)
Persistent substance induced psychosis (F10–19/xx.5)	10 (2)	257 (3)
Persistent delusional disorder (F22)	7 (1)	228 (2)
Induced delusional disorder (F24)	0 (0)	7 (0.1)
Ethnic profile	n (%)	n (%)
White	514 (75)	7,367 (78)
Black or Black British	65 (9)	853 (9)
Asian or Asian British	64 (9)	730 (8)
Mixed	26 (4)	235 (2)
Chinese or other	15 (2)	148 (2)
Not stated/not documented/refused	5 (0.7)	116 (1)

*2 undefined gender
**5 undefined gender

sections of this report. We have shown the findings for the whole inpatient sub-sample and also those patients with schizophrenia and schizo-affective disorder within this sub-sample, as they have direct diagnostic similarity to the NCAP community sub-sample.

Table 28 shows that monitoring of physical health risk factors is better for inpatients than for those in the NCAP community sub-sample, though the proportion receiving an intervention is similar. Table 29 shows that the frequency of polypharmacy and high dose prescribing is greater for the inpatient sub-sample than the NCAP community sub-sample. This might be expected as patients will be more unwell, may well be in the process of switching antipsychotic medication and are likely to be on higher average doses.

It is interesting to note that a higher proportion of patients in this sub-sample were offered CBTp.

Table 28: Findings for the inpatient sub-sample (all patients group and patients with schizophrenia(F20)/schizo-affective disorder (F25) only group) compared with the NCAP community sub-sample

Standard/indicator	All inpatients (n=689) %	Patients with F20 and F25 (n=642) %	NCAP community (n=7,773) %
Standard 1: Physical health monitoring			
Monitoring of all five CVD risk factors	68	69	42
Monitoring of smoking	96	97	86
Monitoring of BMI	88	88	65
Monitoring of glucose control	78	78	59
Monitoring of lipids	76	77	57
Monitoring of blood pressure	89	89	66
Monitoring of alcohol consumption	93	94	87
Monitoring of substance misuse	95	95	86
Standard 2: Physical health intervention			
Intervention for smoking	90	91	79
Intervention for BMI ≥ 25 kg/m²	86	87	78
Intervention for abnormal glucose control	89	88	75
Intervention for abnormal lipids	61	63	52
Intervention for elevated blood pressure	60	61	58
Intervention for harmful/hazardous use of alcohol	92	93	89
Intervention for substance misuse	91	91	83

Table 29: Findings for the inpatient sub-sample (all patients group and patients with schizophrenia (F20)/schizo-affective disorder (F25) only group) compared with the NCAP community sub-sample

Standard/indicator	All inpatients (n=689) %	Patients with F20 and F25 (n=642) %	NCAP community (n=7,773) %
Standards 3 & 4: Provision of information about medication			
Provision of written (or other appropriate format) information about current antipsychotic drug	41	42	30
Record that patient was involved in the prescribing decision	74	74	65
Record of discussion of benefits and adverse effects	82	82	79
Standards 5 & 6: Prescribing			
Frequency of polypharmacy for those on non-clozapine drugs	13	14	10
Frequency of polypharmacy for those on clozapine	11	11	9
Frequency of high dose prescribing	15	16	7.5
Rationale documented where a high dose is prescribed	77	77	66
Standards 7 & 8: Poor response to medication (investigation and clozapine)			
Medication adherence has been investigated	84	85	75
Alcohol and substance misuse have been investigated	73	73	68
Patients not in remission and not on clozapine without an appropriate reason	38	38	53
Standard 9: Psychological therapies			
Patients offered CBTp	40	40	26
Patients offered some form of CBT	53	53	36
Patients in contact with their family offered family intervention	15	15	12
Standards 10 & 11: Care planning and crisis planning			
Each patient has a current care plan	99	99	93
Information about crisis contact	88	88	88
Standard 12: Assessment of the needs of carers			
Carer's needs assessed (for those with a carer)	70	70	55
Employment			
Patients involved in work or study related activity outside the home	5	5	11

Sub-sample of patients with other diagnoses

This sub-sample of patients (n=1,034) have diagnoses other than schizophrenia or schizo-affective disorder. It is too small to allow meaningful comparisons between Trusts, as have been presented for the large NCAP community sub-sample. Table 30 shows the profile of age, gender and diagnoses for these patients in comparison with that for the complete NCAP audit sample (n=9,449).

Table 31 shows the ethnic profile for patients in this sub-sample, and the clinical teams involved in their care, in comparison with that for the complete NCAP audit sample.

The findings for the quality of their care are presented in Tables 32 and 33, showing overall averages for each indicator. The findings are presented in comparison with those from the NCAP community sample.

The demographic profile of this sub-sample of patients with other diagnoses (i.e. not schizophrenia or schizo-affective disorder) is similar to that of the complete NCAP audit sample (n=9,449), apart from having a higher proportion of female patients. The diagnostic profile is of course quite different. The profile of clinical teams caring for these patients is also similar to that for the complete NCAP audit sample.

Table 30: Profile of patients (age, gender, diagnoses) in the NCAP other diagnoses sub-sample (n=1,034)

Parameter	Other diagnoses sub-sample (n=1,034)	Complete audit sample (n=9,449)
Mean age	45 years	46 years
Age range	19–90 years	18–90 years
Male/Female (%)	57%/43%*	66%/34%**
Diagnosis	n (%)	n (%)
Schizophrenia (F20)	n/a	6,810 (72)
Schizo-affective disorder (F25)	n/a	1,605 (17)
Unspecified non-organic psychosis (F28/29)	542 (52)	542 (6)
Persistent substance induced psychosis (F10-19/xx.5)	257 (25)	257 (3)
Persistent delusional disorder (F22)	228 (22)	228 (2)
Induced delusional disorder (F24)	7 (0.7)	7 (0.1)

*1 undefined gender
**5 undefined gender

Table 31: Profile of patients (ethnic profile and clinical team) in the NCAP other diagnoses sub-sample (n=1,034)

Parameter	Other diagnoses sub-sample (n=1,034)	Complete audit sample (n=9,449)
Ethnic profile	n (%)	n (%)
White	843 (82)	7,367 (78)
Black or Black British	68 (7)	853 (9)
Asian or Asian British	67 (6)	730 (8)
Mixed	19 (2)	235 (2)
Chinese or other	20 (2)	148 (2)
Not stated/not documented/refused	17 (2)	116 (1)
Clinical team	n (%)	n (%)
Currently an Inpatient	47 (5)	650 (7)
Forensic inpatient	0 (0)	39 (0.4)
Community Mental Health Team	908 (88)	8,036 (85)
Assertive Outreach Team	23 (2)	365 (4)
Forensic Team	2 (0.2)	88 (1)
Leaning Disability Team	24 (2)	106 (1)
Crisis Resolution/Home Treatment Team	8 (0.8)	58 (0.6)
Out-patient clinic only	10 (1)	51 (0.5)
Elderly Care Team	3 (0.3)	14 (0.1)
Other type of clinical team	9 (0.9)	42 (0.4)

Table 32: Findings for the other diagnoses sub-sample (excluding schizophrenia and schizo-affective disorder) compared with the NCAP community sub-sample

Standard/indicator	Other diagnoses (n=1,034) %	NCAP community (n=7,773) %
Standard 1: Physical health monitoring		
Monitoring of all five CVD risk factors	28	42
Monitoring of smoking	78	86
Monitoring of BMI	52	65
Monitoring of glucose control	48	59
Monitoring of lipids	44	57
Monitoring of blood pressure	54	66
Monitoring of alcohol	82	87
Monitoring of substance misuse	82	86
Standard 2: Physical health interventions		
Intervention for smoking	74	79
Intervention for BMI ≥ 25 kg/m²	73	78
Intervention for abnormal glucose control	68	75
Intervention for abnormal lipids	48	52
Intervention for elevated blood pressure	53	58
Intervention for harmful/hazardous use of alcohol	88	89
Intervention for substance misuse	86	83

For examination of their quality of care, against the audit standards and indicators, this sub-sample is compared with the results for the NCAP community sub-sample (n=7,773), for whom detailed analysis was described in earlier sections of this report.

Table 32 shows that monitoring of physical health risk factors is less good for this sub-sample than for the community patients with schizophrenia or schizo-affective disorder. The proportion receiving an intervention, where required for a physical health problem, is similar to that for the NCAP community sub-sample.

Table 33 shows that these patients receive less polypharmacy and less high dose prescribing than the community patients with schizophrenia or schizo-affective disorder.

Table 33: Findings for the other diagnoses sub-sample (excluding schizophrenia and schizo-affective disorder) compared with the NCAP community sub-sample

Standard/indicator	Other diagnoses (n=1,034) %	NCAP community (n=7,773) %
Standards 3 & 4: Provision of information about medication		
Provision of written (or other appropriate format) information about current antipsychotic drug	32	30
Record that patient was involved in the prescribing decision	69	65
Record of discussion of benefits and adverse effects	76	79
Standards 5 & 6: Prescribing		
Frequency of polypharmacy for those on non-clozapine drugs	6	10
Frequency of high dose prescribing	3	7.5
Rationale documented where a high dose is prescribed	71	66
Standards 7 & 8: Poor response to medication (investigation and clozapine)		
Medication adherence has been investigated	74	75
Alcohol and substance misuse have been investigated	73	68
Patients not in remission and not on clozapine without an appropriate reason	n/a	53
Standard 9: Psychological therapies		
Patients offered CBTp	28	26
Patients offered some form of CBT	37	36
Patients in contact with their family offered family intervention	10	12
Standards 10 & 11: Care planning and crisis planning		
Each patient has a current care plan	89	93
Information about crisis contact	83	88
Standard 12: Assessment of the needs of carers		
Carer's needs assessed (for those with a carer)	51	55
Employment		
Patients involved in work or study related activity outside the home	13	11

Care Programme Approach and Community Treatment Orders

Care Programme Approach (CPA)

Of the complete NCAP audit sample (n=9,449), data regarding management through a Care Programme Approach (CPA) package was returned for all patients who were not inpatients on the census date. For these 8,760 patients, 5,711 (65%) were on a CPA package. Table 34 shows a comparison of these patients against the findings for the complete audit sample.

Figure 37 shows the proportions across Trusts who were being managed through a CPA package. The overall average is 60%, with a range across Trusts from 20% to 100% of all of their current community patients.

In 2008 the Department of Health published 'Refocusing the Care Programme Approach' in which it set out clear criteria for deciding which individuals should receive support through CPA and restricted it's use to those with 'complex characteristics'. The wide differences seen between Trusts, regarding the proportion of their patients to whom CPA applies, suggests that these criteria are being applied very differently across England and Wales.

Community Treatment Order

Of the complete audit sample, information regarding whether the patient was subject to a Community Treatment Order (CTO) was returned for all patients who were not inpatients on the census date. For the remaining 8,760 patients, 529 (6%) were on a CTO. Table 35 shows a comparison of these patients against the findings for the complete audit sample.

Figure 38 shows the proportions across Trusts who were subject to a CTO. The overall average is 6% with a range across Trusts from 2% to 20% of all of their current community patients.

Previous research on the use of CTOs in England found, as has NCAP, that approximately two-thirds were for male patients. Table 35 shows that this reflects the gender balance for the whole population of people with psychosis. It is of note that the population subject to a CTO were more often regarded as *not in remission* by their clinical team – 36% vs. 26% for the complete NCAP audit sample. Though those subject to a CTO had more frequently been admitted to hospital for more than seven nights, during the previous 12 months, such data from a cross-sectional audit cannot be used to interpret the effectiveness or otherwise of the use of a CTO. It may simply be that those who are more likely to be admitted are more likely to be placed on a CTO.

Table 34: Profile of patients who were currently managed via CPA (n=5,711)

Parameter	Patients on CPA (n=5,711)	Complete audit sample (n=9,449)
Mean age	46 years	46 years
Age range	18–90 years	18–90 years
Male/Female (%)	65%/35%*	66%/34%**
Diagnosis	n (%)	n (%)
Schizophrenia (F20)	4,113 (72)	6,810 (72)
Schizo-affective disorder (F25)	1,015 (18)	1,605 (17)
Unspecified non-organic psychosis (F28/29)	311 (5)	542 (6)
Persistent substance induced psychosis (F10-19/xx.5)	150 (3)	257 (3)
Persistent delusional disorder (F22)	120 (2)	228 (2)
Induced delusional disorder (F24)	2 (<0.1)	7 (0.1)
Inpatient episode	n (%)	n (%)
No admission	4,653 (82)	7,561 (80)
Admitted for < 7 nights	93 (2)	135 (1)
Admitted for ≥ 7 nights	965 (17)	1,753 (19)[a]
Mental Health status	n (%)	n (%)
In remission	4,136 (72)	6,947 (74)
Not in remission	1,575 (28)	2,502 (26)

*1 undefined gender
**5 undefined gender
a. Includes n=39 forensic inpatient cases, whose length of stay was not recorded on the audit form. However, their typical inpatient stay is >7 nights.

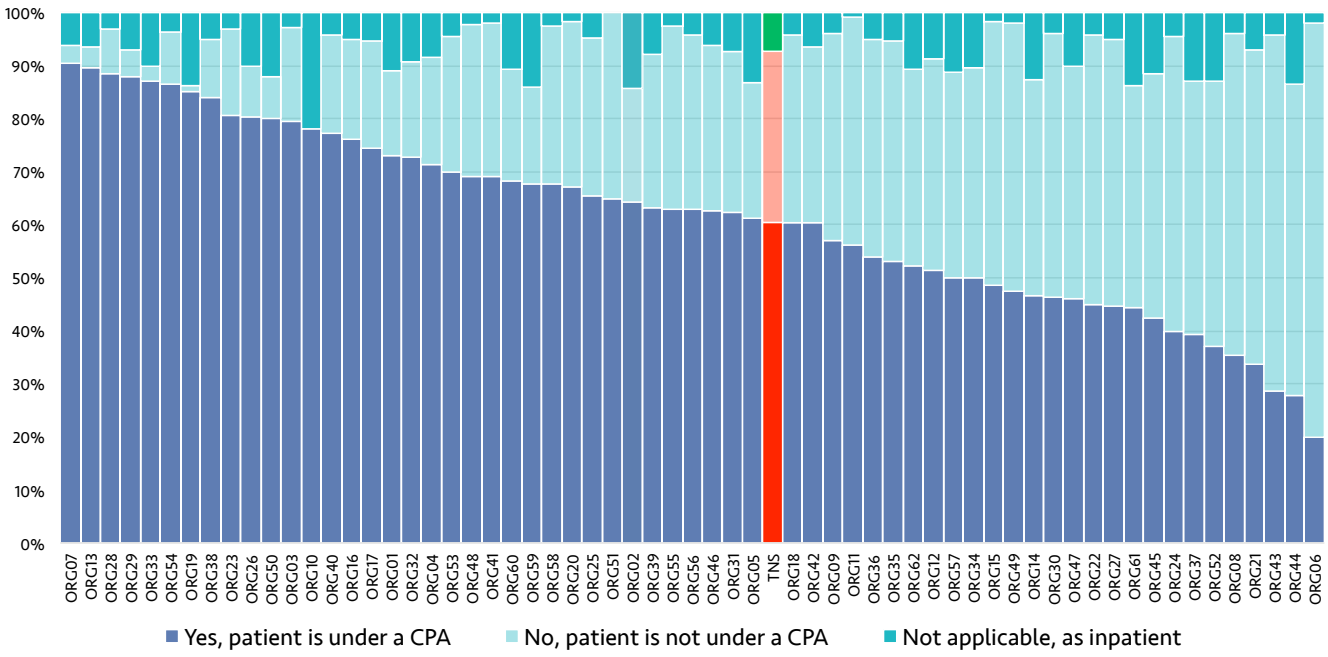


Figure 37: Proportion of patients, from the complete audit sample, across Trusts who were being managed through CPA (n=9,449)

Table 35: Profile of patients who were currently subject to a CTO (n=529)

Parameter	Patients on a CTO (n=529)	Complete audit sample (n=9,449)
Mean age	44 years	46 years
Age range	19–86 years	18–90 years
Male/Female (%)	69%/30%*	66%/34%**
Diagnosis	n (%)	n (%)
Schizophrenia (F20)	368 (70)	6,810 (72)
Schizo-affective disorder (F25)	118 (22)	1,605 (17)
Unspecified non-organic psychosis (F28/29)	7 (1)	542 (6)
Persistent substance induced psychosis (F10–19/xx.5)	17 (3)	257 (3)
Persistent delusional disorder (F22)	19 (4)	228 (2)
Induced delusional disorder (F24)	0 (0)	7 (0.1)
Inpatient episode	n (%)	n (%)
No admission	305 (58)	7,561 (80)
Admitted for < 7 nights	19 (4)	135 (1)
Admitted for ≥ 7 nights	205 (39)	1,753 (19)[a]
Mental Health status	n (%)	n (%)
In remission	336 (64)	6,947 (74)
Not in remission	193 (36)	2,502 (26)

*1 undefined gender
**5 undefined gender
a. Includes n=39 forensic inpatient cases, whose length of stay was not recorded on the audit form. However, their typical inpatient stay is >7 nights.

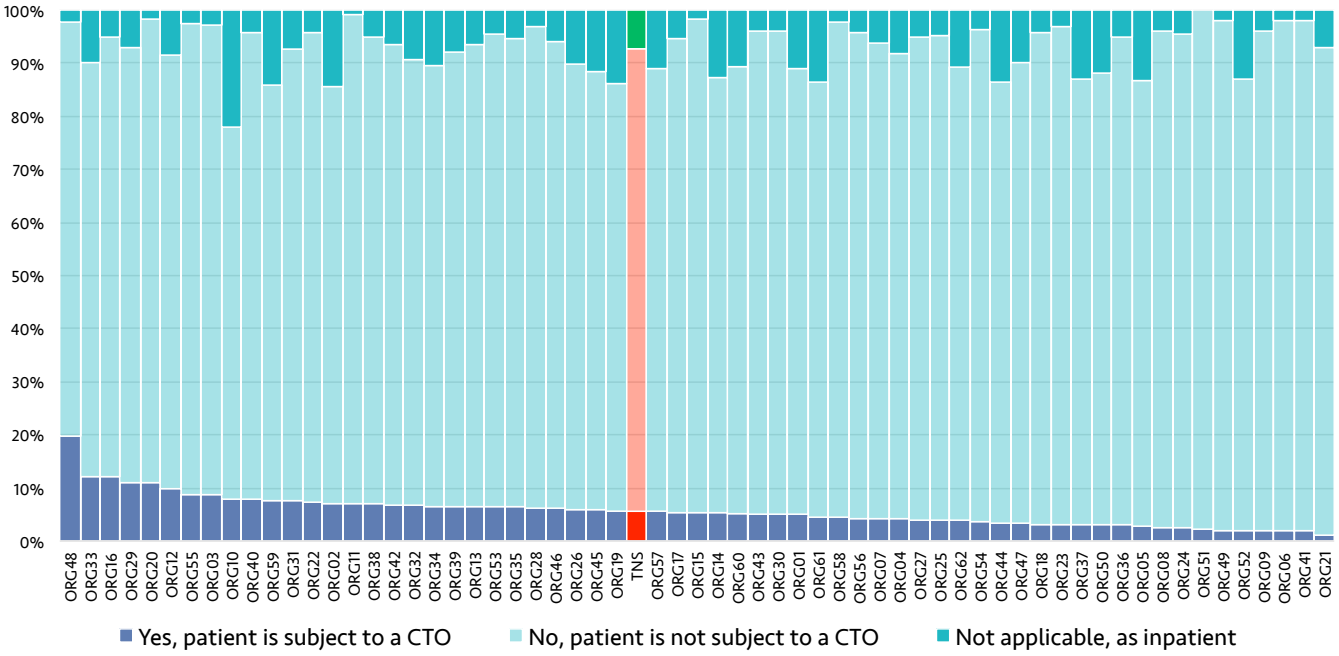


Figure 38: Proportion of patients, from the complete audit sample, across Trusts who were subject to a CTO (n=9,449)

Discussion

The National Clinical Audit of Psychosis builds on previous rounds of the National Audit of Schizophrenia by including new data that have not been previously reported. For the first time we are publishing benchmarked data on the outcomes as well as the process of patient care. At the request of service providers, we will be giving larger Trusts and Health Boards information about variation in quality of care within their organisations. Engagement of service providers in the audit was high, with all English Mental Health Trusts and all Welsh Health Boards contributing data to the audit and an overall return of 88% of the requested cases.

Physical health

The audit has found gradual improvements from NAS1 to NAS2 to NCAP in monitoring of many physical health risk factors (BMI, glucose control, blood pressure and alcohol consumption), with relatively little change for those factors where monitoring was already above 80% (smoking and substance misuse). More patients are also receiving comprehensive monitoring, with 42% having five major physical health risk factors monitored annually compared to only 27% six years ago in NAS1. However, this is still disappointingly low.

Recognition that findings from monitoring indicate a problem and that a patient requires some form of intervention has also improved, particularly glucose control (75%), lipids (52%) and blood pressure (58%) – important risk factors for cardiovascular disease.

Overall, intervention when there is evidence of abnormal glucose control has improved, from 34% of patients in NAS2 to 75% in this audit. However, improved monitoring has identified patients with no known history of diabetes but whose fasting glucose and/or HbA_{1c} results suggest they have pre-diabetes or, as yet unrecognized, diabetes. Only 52% of these patients have documented evidence that they received an intervention.

As noted in the description of the results, overall assessment of risk for CVD using Q-Risk occurs in only 4% of patients. Yet, for a population at high risk of CVD such risk assessment should be occurring for all, with subsequent consideration of lifestyle measures and lipid modification as necessary.

Q-Risk has limitations for people with psychosis. For younger patients, Q-Risk will generally accord them a low risk because it is quite strongly influenced by age. The most recent version (Q-Risk3) is described as valid for people aged 25 to 84 years and makes some adjustment for prescription of antipsychotic medications, but may still have limitations for people with psychosis. The JBS-3 risk calculator, which is an alternative to Q-Risk, provides an estimate of 'heart age' that can be read against the patient's actual age, and may provide better indication of need for preventative action among younger people with psychosis (http://www.jbs3risk.com/pages/risk_calculator.htm).

Prescribing of antipsychotic medication

Quality of prescribing appears to have improved since the last round of the audit with a reduction in polypharmacy (10% from 13% in NAS2 for non-clozapine antipsychotics) and a reduction in high dose prescribing to 7.5% (10% in NAS2). Though prescription of a second antipsychotic drug with clozapine has been increasing, this is specific to increases in the use of amisulpride and aripiprazole. In this audit we cannot determine the reasons for use of these co-prescriptions, though intention to improve clinical symptom response and attempts to reduce weight gain are the most likely reasons. Trusts should review their use of these co-prescriptions and ensure that clinicians only continue these if there is evidence of benefit.

Though the overall proportion of patients being prescribed clozapine seems appropriate (29% of patients in the NCAP community sub-sample) it is of some concern that there appears to be a large proportion of patients (53%), with inadequate response to treatment, who do

not have an appropriate reason for not having had a trial of clozapine.

Though the Trust records of some aspects of communication with patients about their antipsychotic prescription have improved, recording that the patient has been given written information about their medication (or information in another appropriate format) remains poor.

These are issues where medical staff and Mental Health Pharmacists must lead improvements.

Psychological therapies

The findings suggest that considerable improvement is required in the provision of evidence based psychological therapies. Only 12% of patients in contact with their families had been offered family intervention, a decrease from 18% in NAS2. This decrease may partly be explained by the fact that, for NCAP, Trusts were given more clearly specified guidance as to what constituted 'family intervention by a suitably qualified therapist'. In addition, for older patients, it can be difficult to ascertain whether family intervention was offered at an early stage of illness: the population included in the audit had an average age of 46 years and 81% had been ill for more than three years. For 39% of patients, family intervention was not seen as appropriate. Future audits should address how 'appropriateness' has been judged.

Only 26% of patients have been offered CBTp. It is not possible to say whether this has changed since NAS2. However, NICE guidance recommends that all patients with psychosis should be offered CBTp. Lack of adequate staff education and training programmes is a problem and at present those staff who have competence to deliver CBTp are usually concentrated in Early Intervention clinical teams. For both CBTp and family intervention, the audit findings suggest that lack of availability of a therapist is a significant issue in many Trusts.

Employment

The numbers of patients who are in employment, education or voluntary work outside the home is low (11%) and has not changed significantly since the NAS2 audit. Yet, only 46% of patients who were unemployed and seeking work were recorded as receiving support towards gaining employment. Without a survey of patient experience, we were unable to collect information on other types of activity outside the home, but in NAS2 only 34% of patients who responded to the survey said they were involved in any activities. Thus, it appears that more needs to be done to help patients to become employed or at least involved in meaningful daytime activity outside their homes.

Information recording

A lack of adequate systems for recording and reviewing information continues to be a problem. At the most basic level, many Trusts had difficulty in assembling a list of patients meeting the selection criteria for the audit. This difficulty seemed to be due to a lack of adequate diagnostic information in information systems capturing data on those who were not inpatients.

There also appear to be problems in finding certain information. Where a patient had not been given a trial of clozapine a common response was: 'no reason indicated'. Allied to this type of problem, there are many instances where monitoring of important physical health risk factors has either not occurred or not been recorded.

If Trusts used an Annual Summary of Care for each patient some of these problems might be avoided. Such a summary could include important information on medication history (e.g. has the patient responded to standard antipsychotics; was clozapine considered if response was poor; record of reasons for not prescribing clozapine), on psychological therapies (e.g. has CBTp been offered and accepted/refused) and on care of physical health (e.g. has each risk factor been monitored in the past 12 months; were abnormalities detected; what interventions have been offered).

Such an Annual Summary would provide mental health teams with an opportunity to review key aspects of each patient's care and help to flag up things that may have been forgotten. It would provide a useful summary for new staff joining a team and for staff on a different team should the patient move. It could be also shared with the patient and their primary care team. It could become part of the patient's digital case record and be used to provide data for MHSDS. It would be different from, and would not supplant, a Care Plan, the purpose of which is much wider.

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Appendices

Appendix A Participating Trusts and Health Boards

Trusts and Health Boards listed in alphabetical order next to their NCAP Organisation ID code.

01 2gether NHS Foundation Trust
02 Abertawe Bro Morgannwg University Health Board
03 Aneurin Bevan Health Board
04 Avon and Wiltshire Mental Health Partnership NHS Trust
05 Barnet, Enfield and Haringey Mental Health NHS Trust
06 Berkshire Healthcare NHS Foundation Trust
07 Betsi Cadwaladr University Health Board
08 Birmingham and Solihull Mental Health NHS Foundation Trust
09 Black Country Partnership NHS Foundation Trust
10 Bradford District Care NHS FoundationTrust
11 Cambridgeshire and Peterborough NHS Foundation Trust
12 Camden and Islington NHS Foundation Trust
13 Cardiff & Vale University Health Board
14 Central and North West London NHS Foundation Trust
15 Cheshire and Wirral Partnership NHS Foundation Trust
16 Cornwall Partnership NHS Foundation Trust
17 Coventry and Warwickshire Partnership NHS Trust
18 Cumbria Partnership NHS Foundation Trust
19 Cwm Taf University Health Board
20 Derbyshire Healthcare NHS Foundation Trust
21 Devon Partnership NHS Trust
22 Dorset Healthcare University NHS Foundation Trust
23 Dudley and Walsall Mental Health Partnership NHS Trust
24 East London NHS Foundation Trust
25 Essex Partnership University NHS Foundation Trust
26 Greater Manchester Mental Health Services NHS Foundation Trust
27 Hertfordshire Partnership University NHS Foundation Trust
28 Humber NHS Foundation Trust
29 Hywel Dda Health Board
30 Isle of Wight NHS Trust
31 Kent and Medway NHS and Social Care Partnership Trust
32 Lancashire Care NHS Foundation Trust
33 Leeds and York Partnership NHS Foundation Trust
34 Leicestershire Partnership NHS Trust
35 Lincolnshire Partnership NHS Foundation Trust
36 Livewell Southwest CIC
37 Mersey Care NHS Foundation Trust
38 NAViGO Health and Social Care CIC
39 Norfolk and Suffolk NHS Foundation Trust
40 North East London NHS Foundation Trust
41 North Staffordshire Combined Healthcare NHS Trust
42 North West Boroughs Healthcare NHS Foundation Trust
43 Northamptonshire Healthcare NHS Foundation Trust
44 Northumberland, Tyne and Wear NHS Foundation Trust
45 Nottinghamshire Healthcare NHS Foundation Trust
46 Oxford Health NHS Foundation Trust
47 Oxleas NHS Foundation Trust
48 Pennine Care NHS Foundation Trust
49 Rotherham, Doncaster and South Humber NHS Foundation Trust
50 Sheffield Health and Social Care NHS Foundation Trust
51 Solent NHS Trust
52 Somerset Partnership NHS Foundation Trust
53 South London and Maudsley NHS Foundation Trust
54 South Staffordshire and Shropshire Healthcare NHS Foundation Trust

55 South West London and St George's Mental Health NHS Trust
56 South West Yorkshire Partnership NHS Foundation Trust
57 Southern Health NHS Foundation Trust
58 Surrey and Borders Partnership NHS Foundation Trust
59 Sussex Partnership NHS Foundation Trust
60 Tees, Esk and Wear Valleys NHS Foundation Trust
61 West London Mental Health NHS Trust
62 Worcestershire Health and Care NHS Trust

Appendix B
Trust and Health Board returns

Table 36: Expected and actual returns (after data cleaning) from each Trust

Trust ID	Expected sample	Final sample after data cleaning
ORG 01	100	100
ORG 02	100	42
ORG 03	100	34
ORG 04	300	289
ORG 05	150	150
ORG 06	100	100
ORG 07	100	95
ORG 08	200	200
ORG 09	100	100
ORG 10	150	150
ORG 11	100	112
ORG 12	100	70
ORG 13	100	76
ORG 14	300	300
ORG 15	200	187
ORG 16	100	100
ORG 17	150	110
ORG 18	100	96
ORG 19	100	87
ORG 20	200	165
ORG 21	100	101
ORG 22	100	69
ORG 23	100	98
ORG 24	250	243
ORG 25	300	276
ORG 26	300	286
ORG 27	300	300
ORG 28	100	96
ORG 29	100	100
ORG 30	100	99

Table 36: Expected and actual returns (after data cleaning) from each Trust

ORG 31	300	300
ORG 32	300	300
ORG 33	100	100
ORG 34	150	76
ORG 35	200	94
ORG 36	100	100
ORG 37	300	300
ORG 38	100	100
ORG 39	100	76
ORG 40	200	189
ORG 41	100	100
ORG 42	250	250
ORG 43	100	98
ORG 44	300	298
ORG 45	100	52
ORG 46	100	99
ORG 47	150	150
ORG 48	250	182
ORG 49	150	145
ORG 50	100	100
ORG 51	100	88
ORG 52	100	100
ORG 53	200	200
ORG 54	200	82
ORG 55	250	249
ORG 56	300	253
ORG 57	250	54
ORG 58	300	293
ORG 59	300	300
ORG 60	300	272
ORG 61	200	88
ORG 62	150	130
TOTALS	10,700	9,449

Appendix C
Steering Group

In alphabetical order:

Dr Safi Afghan – Royal College of Psychiatrists General Adult Faculty

Dr Arokia Antonsamy – NHS Benchmarking

Professor Thomas Barnes – Prescribing Observatory for Mental Health UK (POMH-UK); British Association for Psychopharmacology

Dr Alison Brabban – Early Intervention in Psychosis Network

Dr Elizabeth Davies – Public Health Department Wales

Dr Sarah Ebrahim – British Psychological Society (BPS)

Dr Elizabeth England – Royal College of General Practitioners (RCGP)

Ellie Gordon – Royal College of Nursing (RCN)

Danielle Hamm – Rethink Mental Illness

Sarah Holloway – NHS England

Sarah Kahn – NHS England

Professor Tim Kendall – NHS England

Jay Nairn – NHS England

Vicky Nash – Mind

Carol Paton – College of Mental Health Pharmacy and Prescribing Observatory for Mental Health UK (POMH-UK)

Dr Che Rosebert – British Psychological Society (BPS)

Vivien Seagrove – Healthcare Quality Improvement Partnership (HQIP)

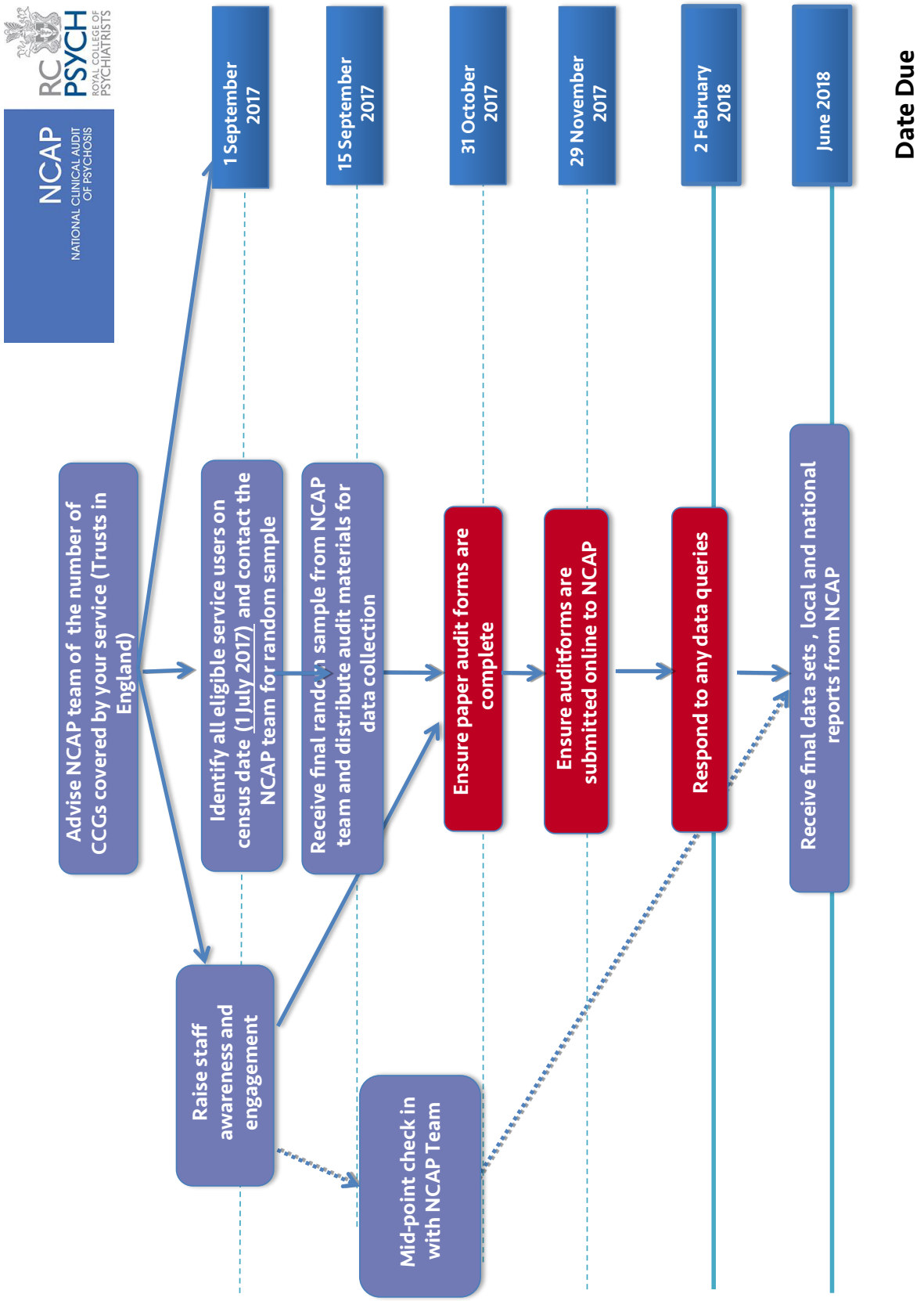
Keiko Toma – Care Quality Commission (CQC)

Nicola Vick – Care Quality Commission (CQC)

Dr Kirsten Windfuhr – Healthcare Quality Improvement Partnership (HQIP)

All members of the Steering Group and the audit Implementation Group were asked to complete a Declaration of Competing Interests form. These are held on file in CCQI and are available for inspection.

Appendix D
NCAP local process flowchart



Appendix E Glossary

A

Adherence: In the context of this report, this refers to taking medication in a way that allows it to be effective; i.e. at the prescribed times and dosage. Non-adherence therefore refers to either not taking the medication or not following the *prescription*.

Adverse effect: An unpleasant or harmful consequence associated with taking a medication (sometimes called *side-effects* but not absolutely equivalent).

Alcohol misuse: The use of alcohol to the extent that it affects the person's daily life. It can lead to dependence on alcohol and can affect the person's mental health.

Antipsychotics: A group of medications that are prescribed to treat people with symptoms of *psychosis*.

Audit: Clinical audit is a quality improvement process. It seeks to improve patient care and *outcomes* through a systematic review of care against specific standards or criteria. The results should act as a stimulus to implement improvements in the delivery of treatment and care.

Audit standard: A standard is a specific criterion against which current practice in a service is measured. Standards are often developed from recognised, published guidelines for provision of treatment and care.

Augment: To change by adding something. In the context of the treatment of *schizophrenia* it is often adding another treatment to a treatment the person is already receiving (it thus differs from switching from one treatment to another).

B

Benchmark: A standard result that can be used as a basis for comparison.

Blood glucose: Level of sugar in the blood. Measuring this is done to see if someone has *diabetes* (the term blood glucose is used in this report as a more familiar terminology for non-medical readers than the more correct plasma glucose).

Blood pressure: This gives one measure of how healthy a person's cardiovascular system is, i.e. the functioning of their heart, blood vessels and aspects of their kidney function. It is measured using two levels: systolic and diastolic blood pressure.

Body Mass Index (BMI): This is an indicator of healthy body weight, calculated by dividing the weight in kilograms by the square of the height in meters.

British Association for Psychopharmacology (BAP): A scientific society that brings together doctors and scientists from clinical and scientific disciplines with an interest in how licensed therapeutic medications, potential new medications and other drugs may affect mental function and behaviour.

British National Formulary (BNF): A publication that provides guidance on prescribing for health professionals. It also publishes maximum recommended doses for different medications.

British Psychological Society (BPS): A registered charity which acts as the representative body for psychology and psychologists in the UK. It is responsible for the promotion of excellence and ethical practice in the science, education, and application of the discipline.

C

Carer: A person, often a spouse, family member or close friend, who provides unpaid emotional and day-to-day support to the *patient*.

Cardiovascular Disease (CVD): Diseases of the heart, blood vessels and blood circulation.

Caveat: A factor relating to some (often unavoidable) aspect of the design of a study or problem in the collection of data that should be noted as it may (or may not) have had an effect on the results.

Chief Executive (CEO): Appointed as the lead of a health organisation, e.g. a *Trust*, to manage how healthcare is delivered.

Cholesterol: An important component of blood *lipids* (fats) and a factor determining cardiovascular health. If this is high, it may lead to heart problems.

Clinical Commissioning Groups (CCGs): Groups of *clinicians* led by GPs who take on the role of purchasing local health services in England.

Clinical Director: A person with experience of clinical work in healthcare organisations but who assists in leading and managing a specialist service. They can cover both hospital and community care.

Clinician: A health professional, who sees and treats patients and is responsible for some or all aspects of their care.

Cognitive behavioural therapy (CBT): A form of *psychological therapy*, which is usually short-term and addresses thoughts and behaviour.

Cognitive behavioural therapy for psychosis (CBTp): A specialist form of *CBT* that has been developed to help people suffering with distressing psychotic experiences, most often hallucinations and delusions. It also focuses on reducing the distress, depression and anxiety common in psychosis, developing self-management and working towards personal goals for everyday living.

College Centre for Quality Improvement (CCQI): A department of the *Royal College of Psychiatrists*, which works with services and patients to raise standards in mental health care.

College of Mental Health Pharmacy (CMHP): A scientific society with the overall objective of advancing education and research in the practice of mental health pharmacy. It is mainly aimed at pharmacists and pharmacy technicians.

Community Mental Health Team (CMHT): A group of health professionals who specialise in working with people with mental health problems outside of hospitals.

Consultant Psychiatrist: A doctor who is a medical expert in psychiatry and on the *General Medical Council's* Specialist Register.

Contraindicated: The available evidence suggests that something (e.g. medication) should not be used.

CQUIN: The Commissioning for Quality and Innovation (CQUIN) payment framework enables commissioners to reward excellence, by linking a proportion of English healthcare providers' income to the achievement of local quality improvement goals.

D

Depot: A long lasting *antipsychotic* medication administered by injection.

Diabetes: A long-term condition caused by having high levels of sugar in the blood. There are two types; type 1 diabetes which can be controlled with insulin injections, and type 2 diabetes which can generally be controlled through diet.

Dyslipidaemia: A condition where a person has an abnormal level of one or more types of *lipids*. Most commonly there is too high a level of lipids which increases the risk of having a heart attack or a stroke.

E

Electrocardiography (ECG): A test that measures the electrical activity of the heart.

Ethnicity: The fact or state of belonging to a social group that has a common national or cultural tradition.

F

Fasting plasma glucose: A blood test to see if someone has *diabetes*.

Family history: Whether a family member has suffered a common or relevant physical health condition, for example *diabetes*.

Family intervention: A structured intervention for those families and carers living with or spending long periods of time with a person experiencing psychosis. The aim of this intervention is to support families to deal with their relative's problems more effectively, to reduce stress within families and to ultimately reduce the chance of a future relapse.

Focus group: A meeting of a group of people with similar experience from whom feedback is gathered.

G

General Medical Council: The body that approves doctors to practice medicine in the UK and regulates their work.

General Practitioner (GP): A doctor who works in practices in the community and who is generally the first point of contact for all physical and mental health problems.

Glucose: A type of sugar. The body uses this for energy.

Glycated haemoglobin: See HbA_{1c}.

H

HbA_{1c}: *Glycated haemoglobin*. A form of haemoglobin that is bound to the sugar *glucose* and can provide an indication of how well *diabetes* is being controlled.

Health Boards: The Welsh equivalent of NHS Trusts.

Health check: See *physical health check*.

Health Education England (HEE): Established as a Special Health Authority in June 2012 to ensure that the workforce has the right skills, behaviours and training, and is available in the right numbers, to support the delivery of excellent healthcare and drive improvements (http://hee.nhs.uk/).

HoNOS: Health of the Nation Outcomes Scales. Developed to measure various aspects of the level of symptoms, social and other functioning and general health of people with severe mental illness.

High Density Lipoprotein (HDL): One of a group of proteins that transport lipids in the blood.

Healthcare Quality Improvement Partnership (HQIP): An organisation which funds clinical *audits* and works to increase the impact of these to improve quality in healthcare in England and Wales.

Hyperglycaemia: A situation where a person is found to have high blood glucose (sugar) levels above those normally expected. If persistent it usually suggests the person is suffering from *diabetes*.

Hypertension: High *blood pressure*. This is a risk factor for heart disease and stroke.

I

ICD-10: The International Statistical Classification of Diseases and Related Health Problems, 10th Revision. A list of medical disorders, classified into sections according to areas of the body or functions principally affected, published by the World Health Organisation. It defines the full range of recognised clinical disorders and contains lists of symptoms for these. It is a useful diagnostic tool for clinicians.

Increasing Access to Psychological Therapies (IAPT): The IAPT for Severe Mental Illness (SMI) project aims to increase public access to a range of NICE approved psychological therapies for psychosis, bipolar disorder and personality disorders (www.iapt.nhs.uk).

Inpatient: Someone under care in hospital.

L

Lester Resource: See: www.rcpsych.ac.uk/quality/nationalclinicalaudits/schizophrenia/nationalschizophreniaaudit/nasresources.aspx

Lipids: Fats, such as *cholesterol*. They are stored in the body and provide us with energy. Levels too far outside of the normal range increase risk of certain diseases.

M

Medical Director: A doctor within a health organisation who works as part of the senior management team to provide clinical leadership and advice, and act as a bridge between medical staff and the organisation.

Mental Health Services Data Set (MHSDS): An approved NHS Information Standard that delivers information on people in contact with specialist secondary mental health services. It covers not only services provided in hospitals, but also in outpatient clinics and in the community, where the majority of people in contact with these services are treated.

Metabolic: Relating to metabolism; this refers to all the chemical processes that happen in the body, in particular those associated with food.

mmHg: Millimeters of mercury.

mmol/l: Millimoles per litre.

Multi-professional: Usually refers to a team of health professionals from different professional backgrounds.

N

National Clinical Audit and Patient Outcome Programme (NCAPOP): A closely linked set of centrally-funded national clinical audit projects that collect data on compliance with evidence based standards, and provide local Trusts with benchmarked reports on the compliance and performance. The programme is funded by NHS England and the Welsh Government.

National guidelines: Nationally agreed documents which recommend the best way of doing something, for example treating a mental health problem.

NHS England: The National Health Service (NHS) England exists to care for people. Their goal is to provide high quality care for everyone, now and in the future. At a more local level, NHS England works together with *Clinical Commissioning Groups (CCGs)* who deliver health services locally, and local authorities (Councils) to make shared plans for services that put patients at the centre (www.england.nhs.uk).

NICE (National Institute for Health and Clinical Excellence): An independent organisation responsible for providing national guidance on promoting good health, and preventing and treating ill health.

NICE guideline: Guidelines on the treatment and care of people with a specific disease or condition in the NHS.

O

Obesity: An abnormal accumulation of body fat, usually 20% or more over an individual's ideal body weight. Obesity is associated with increased risk of illness.

Outcomes: What happens as a result of treatment. For example, this could include recovery and improvement.

Outcome indicators: A measure that shows *outcomes*.

P

Patient: Person who uses mental health services.

Physical health check: A medical examination, which ideally should include speaking to the patient about their family history of illness, smoking, *substance misuse* and alcohol intake plus measures of weight, height, *blood pressure* and blood levels of *glucose*, *lipids* and *prolactin* (if indicated).

Pilot: A trial run of a project such as audit or research which tests out methods and data collection materials.

Polypharmacy: The prescription of more than one medication at a time.

POMH-UK: The Prescribing Observatory for Mental Health-UK is a system of *audit*, managed through the *Royal College of Psychiatrists*, for assisting clinical staff in *Trusts* to monitor and improve their practice in relation to the use of medications in the treatment of patients with mental illnesses.

Power analysis: A means of determining the minimum number of returns (e.g. survey responses) required for meaningful statistical analysis of the collected data.

Pre-diabetes: This describes a state in which some but not all of the diagnostic criteria for *diabetes* are met. It is where control of blood sugar levels is not normal but not yet definitely sufficiently abnormal to say that diabetes has developed.

Prescription: The supply of medications under the instruction of a health professional.

Primary care: Healthcare services that are provided in the community. This includes services provided by GPs, nurses and other healthcare professionals, dentists, pharmacists and opticians.

Professional bodies: Usually not-for-profit organisations for members of a particular profession. Their aims include assuring training and continued development for professionals and highlighting issues that are important to their members and the general public.

Prognosis: The prognosis for a *patient* is an opinion, usually given by a senior doctor, of how a patent's illness is likely to respond to treatment and what the longer term outlook for that person may be.

Prolactin: A hormone produced in the pituitary gland. It has a number of functions in the body, including reproductive and metabolic.

Psychological therapies: Covers a range of interventions designed to improve mental wellbeing. They are delivered by psychologists or other health professionals with specialist training and can be one-to-one sessions or in a group.

Psychopharmacology: The name for the science surrounding our knowledge of the mechanisms of action of, and practice of, prescribing of medications that are used in the treatment of many mental disorders. For example *antipsychotic*, antidepressant and antianxiety medications.

Psychosis: A term describing people having specific types of symptoms, and where they may lose touch with reality. Symptoms can include difficulty concentrating and confusion, conviction that something that is not true is so (false beliefs or delusions), sensing things that are not there (hallucinations) and changed feelings and behaviour. Psychosis is treatable. It can affect people of any age and may sometimes be caused by known physical illnesses.

Q

Quality and Outcomes Framework (QOF): A voluntary incentive scheme for *GP* practices throughout the UK to help ensure good patient care. Contains a number of indicators against which the practice is measured. The practice is then financially rewarded for how well they perform.

R

Randomised Controlled Trial (RCT): A design for research that is considered to be of high quality.

Relapse: Becoming ill again after a period of being better.

Reliable: Consistent over time, for example if different people completed a questionnaire they would get the same answers. An indication of a good measure or tool.

Remission: When someone is not currently suffering from the symptoms of an illness that has affected them they are said to be in remission.

Royal College of General Practitioners (RCGP): The professional and educational body for *GPs* in the United Kingdom.

Royal College of Nursing (RCN): The professional and educational body for nurses in the United Kingdom.

Royal College of Psychiatrists (RCPsych): The professional and educational body for psychiatrists in the United Kingdom.

S

Schizo-affective disorder: A mental illness where the person suffers from both symptoms of *schizophrenia* and an affective disorder, such as depression, at the same time.

Schizophrenia: 'One of the terms used to describe a major psychiatric disorder (or cluster of disorders) that alters an individual's perception, thoughts, affect and behaviour.' (NICE CG82, 2009, p16). Symptoms can include *psychosis*.

Secondary care: This refers to care provided by specialist teams in *Trusts* rather than care provided by *general practitioners* and *primary care* services. Mental Health Trusts provide secondary care services, most of which involve care provided in the community rather than in hospitals.

Service user: Person who uses mental health services.

Side-effects: A consequence of taking a medication that is in addition to its intended effect. Unlike *adverse effects*, side-effects are not always negative.

Standard deviation (SD): Shows how spread out the data are.

Substance misuse: The use of illegal drugs to the extent that it affects daily life. Can also refer to the use of legal drugs without a prescription. Substance misuse can lead to dependence on the substance and can affect the person's mental health.

T

Total national sample (TNS): The combined data set of the national sample.

Treatment unresponsive: Most commonly used to describe patients who have clinically significant, persistent and usually disabling symptoms despite trials of treatment, for an adequate period of time, with at least two different antipsychotic medications at adequate doses. In some situations, this may occur because *adverse effects* limit the dose of a medication that a person can tolerate. There have been a number of different definitions but in general around 30% of patients may become unresponsive to treatment and some may be poorly responsive to treatment even from their first episode.

Trust Boards: A group of executives, including the *Chief Executive*, *Medical Director* and *Director of Nursing*, and local non-executive members who meet to, amongst other purposes, plan and govern the Trust and monitor and set high standards for performance.

Trusts: National Health Service (NHS) Trusts are public service organisations that provide healthcare services. They include: *Primary Care* Trusts; Acute Trusts, which manage hospitals; Care Trusts, which cover both health and social care; Foundation Trusts, which have a degree of financial and operational freedom; and Mental Health Trusts, which provide health and social care services for people affected by mental health problems.

Appendix F
Prescribing of unlicensed antipsychotic medications

A small number of patients were being prescribed antipsychotic medications that are not currently licensed in the United Kingdom. Details of the doses prescribed, and whether these were in combination with another antipsychotic drug, are provided in Table 37 below. The upper dose limit provided is either what was previously regarded as appropriate when the drug was licensed in the UK or what is applied in countries where the drug is currently licensed.

Twenty patients were receiving depot pipotiazine palmitate (®Piportil) which is no longer listed in the BNF. Seventeen of these patients had a diagnosis of schizophrenia, two had a diagnosis of schizo-affective disorder and one a diagnosis of unspecified psychosis.

This drug was discontinued from the BNF in 2015 because it was no longer available due to shortage of the ingredients for its manufacture. There had not been any safety concerns. However, a few Trusts still have access to supplies of this drug for patients who had been successfully maintained on it. All doses of pipotiazine palmitate were being prescribed within the previous BNF dose range.

Two patients were being prescribed penfluridol. This is an unusual antipsychotic drug as it is a long-acting oral preparation, with an elimination half-life of 66 hours, that can be given once per week. It was first developed in 1968 but was never licensed in the UK. It is licensed for use in the USA and a number of other countries for the treatment of schizophrenia. It has the same potential for adverse effects as other antipsychotic drugs.

There were no patients being prescribed fluspirilene, melperone, sertindole, thioridazine or zotepine, which were being prescribed to a total of 11 patients in NAS2.

Table 37: Details of prescribing of unlicensed antipsychotic medications

Antipsychotic	Upper dose limit	Dose/s prescribed	Other drug if in combination	Total dose as % of BNF maximum
Penfluridol *(2 patients)*	60 mg/week	40 mg/week	none	67%
		17.1 mg/week	none	29%
Pipotiazine depot *(16 patients as a single antipsychotic)*	50 mg/week	Range of doses: 6.25 mg/week to 50 mg/week	none	25%–100%
Pipotiazine depot *(4 patients with a 2nd antipsychotic)*	50 mg/week	6.25 mg/week	Olanzapine 5 mg/day	38%
		25 mg/week	Aripiprazole 15 mg/day	100%
		25 mg/week	Quetiapine 100 mg/day	63%
		50 mg/week	Olanzapine 10 mg/day	150%

Appendix G
Quality assurance visits

A review of the quality of data collection at three Trusts and one Health Board took place. Trusts were informed of this at the beginning of the audit and were selected at random from the 62 who contributed data. The purpose of these visits was in part to quality assure the data collected and in part to allow the NCAP team to gain a better understanding of the various barriers faced by Trusts in the audit process. Ten items of data, relating to prescribing, monitoring of physical health and psychological therapies, were chosen for verification against the Trust records.

The Trusts selected were each visited for one day in March and May 2018 by an impartial clinician not connected with NCAP and a member of staff from the central NCAP team. These Trusts were asked in advance to make a member of staff available who could access up to 25 sets of case records from those they had entered into the audit, 15 of which were then randomly selected by the NCAP team member to be reviewed on the day of the visit. The member of Trust staff was asked to locate the data that supported each of the ten items of data selected for verification.

In total, data were reviewed for 60 case records audit of practice returns. It was possible to verify the majority of data returned. The most common reason for difficulty in verifying data was that it was far back in the patient's history. For example, the Trust might report that a patient had not been offered family intervention, but the review team would not be able to easily verify this type of 'negative' response as it would require review of the patient's whole history (which was frequently in excess of 10 years). Sometimes information was not regularly updated in letters to primary care, making it more difficult to verify. The types of information that were difficult to verify were different for Trusts using electronic records and those using paper records. Occasionally information was not available in the case records but held on separate laboratory systems that could not be accessed at the time of the visit.

Overall, these reviews suggested that the data returned was of reasonable quality. There are clearly areas of Trusts' process where improvements could be made, for example, relating to how information is reviewed and recorded in case records and what is routinely included in letters to primary care.

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