Workshop report: Using Trust-level national clinical audit data to support quality assurance and quality improvement

‘Maximising the use and accessibility of National Clinical Audit and Clinical Outcome Review Programme data to optimise the CQC regulatory process and to support quality improvement measures at Trust level’

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Contents

Purpose of this document: what it covers

The purpose of this document is to collate the findings of a multi-disciplinary workshop held by the Healthcare Quality Improvement Partnership (HQIP) in conjunction with the Care Quality Commission (CQC) in November 2015.

The purpose of the workshop was to describe the progress of a collaborative endeavour between HQIP and CQC to systematically optimise the use of National Clinical Audit (NCA) data for both quality assurance and quality improvement. It also engaged with key audiences and stakeholders that use NCA data by encouraging discussion in an open forum.

This document will describe the conduct and format of the workshop, provide linkage to relevant online supplementary material and distil the results of attendee discussions into broad themes.

This document should be read in conjunction with preceding documents describing the conception ("Prioritisation of metrics from National Clinical Audits and Clinical Outcome Review Programmes"; http://www.hqip.org.uk/resources/use-of-clinical-audit-data-cqc-processes/) and advancement ("Optimal data flow from National Clinical Audits and Clinical Outcome Review Programmes"; http://www.hqip.org.uk/resources/maximising-clinical-audit-data-for-cqc-inspections-optimal-data-flow-report/) of the project.

Audience: who this document is intended for

This document is intended to serve as a reference for both attendees at the workshop and for interested parties who were unable to attend the event . It will also help to shape HQIP and CQC's subsequent progression of the project.

It is envisaged that interested parties will include audit providers that are currently under contract to HQIP to perform national clinical audit as part of the NCAPOP, as well as non-NCAPOP audit providers currently engaged with the project, newly specified NCAs (both within and outside of the NCAPOP), audit participants, healthcare regulators across the four nations, healthcare commissioners and patient groups.

Background: why this document is needed

The aim of the project is to optimise the use of NCA data to support the CQC's new regulatory methodology (http://www.cqc.org.uk/content/how-we-inspect-and-regulate-guide-providers) and to maximise the utility of this data for Trust quality improvement initiatives.

The reasons behind the production of this document include anecdotal reports of barriers to the current utility of NCA data (http://www.hqip.org.uk/resources/engaging-clinicians-in-qi-through-clinical-audit-report/), the need to accommodate new data flows within an already 'data-heavy' and resource-constrained environment and a desire to maintain transparency with the development of this project in the engagement of key stakeholders.

Planning: where this document has come from

Oversight for the collaboration between HQIP and CQC (and therefore for the creation of this document) has been provided by members of a Steering Group (SG) comprised of representatives from HQIP, the CQC, the National Advisory Group on Clinical Audit and Enquiries (NAGCAE), NCA clinical and methodological leadership, Trust audit departments and Service User Networks. The most current details of individual SG membership are listed in Appendix 1.

This report has been formulated in a manner similar to the aforementioned HQIP documents concerning this project and is intended to complement them and other HQIP guidance on delivery of high quality national clinical audit (http://www.hqip.org.uk/public/cms/253/625/19/186/HQIP-Criteria%20and%20indicators%20of%20best%20practice%20in%20clinical%20audit-March%202012.pdf?realName=JlO6ff.pdf). The document has been written by representatives of HQIP and CQC and the final draft has been derived after multiple cycles of internal consultation.

Structure of the document

This document is composed of the following parts:

1. Introduction
2. Aim
3. Description of workshop format
4. Methodology
5. Key findings
6. Discussion
7. Conclusion

1. Introduction

1.1 The Care Quality Commission (CQC) and quality assurance

Meaningful inspection and regulation of complex systems like healthcare provision should be supported by intelligent, consistent and transparent use of data.

The new style of CQC inspection commenced in September 2013 following Sir Robert Francis QC's report into care at the Mid-Staffordshire Foundation Trust[1]. The CQC was one – among a plethora of agencies, scrutiny groups and commissioners – identified as failing the population of Staffordshire in assuring delivery of acceptable standards of care.

A radical, new approach to inspections now involves patients and clinical experts assisting professional inspectors to gain deeper understanding on care provided by organisations. There has been a conscious move from a predominantly regulatory approach involving inspections undertaken by assessors with generic skills, to using specialists to get under the skin of organisations and more accurately reflect the services delivered.

An independent review[2] of the new inspection process found that the new model received almost universal endorsement from stakeholders and was regarded as more credible, authoritative, rigorous and in-depth in comparison to the old format. Central to the new inspection process, is the use of specialists (including patients as "experts by experience") to inform assessments and the wide-ranging use of data to support judgements. During the pre-inspection phase of an announced inspection, intelligence is gathered from a number of national data sources including NCAs. Data collected helps identify areas of potential excellence or risk, and will be further corroborated whilst on-site by discussing findings with members of the Trust.

1.2 The Healthcare Quality Improvement Partnership (HQIP), National Clinical Audits (NCAs) and the National Clinical and Patient Outcomes Programme (NCAPOP)

HQIP has a central role in facilitating nationwide improvements in healthcare delivery through its role as NHS England's appointed commissioner of approximately 30 NCAs within the current NCAPOP. In addition, several prominent NCAs (such as the Intensive Care National Audit and Research Centre's Case Mix Programme and the Trauma Audit and Research Network) are delivered by providers outside the NCAPOP.

The expansion of NCAPOP has occurred concurrently with landmark reviews of provision within the NHS. These identified the importance of measuring healthcare-related metrics in order to demonstrate improvement, effectiveness and safety[3]. This has been followed by executive-level directives to increase transparency and openness within the NHS – in part through increased reporting of healthcare-related metrics[4].

1.3 The scope of the current problem

However, despite an increased political appetite for such data, barriers such as data volume, discordance between measured metrics and referenced national guidelines or standards, ease of access to data and contemporaneousness of data flow have hindered both quality improvement and quality assurance. At present, there is no unifying resource that succinctly collates and displays key NCA data, searchable at Trust or hospital-level in a user-friendly and accessible way.

1.4 A collaborative solution

HQIP and CQC began jointly working with audit providers in the spring of 2015 to optimise the use of NCA data to support the CQC's new regulatory methodology and to maximise the utility of this data for Trust quality improvement initiatives. Central to the project is the rationalisation and distillation of current NCA data into 'key' metrics of prime relevance and integration into a cross-cutting display that provides an overview of the data. Such a resource may have the potential to address Trust-level difficulties with ease of access, relevance and contemporaneousness.

2. Aim

The aim of the workshop was to allow HQIP and CQC to engage with key stakeholders involved in the supply and use of NCA data in order to gain a more thorough understanding of the potential benefits and challenges associated with using NCA data in the manner described above.

3. Description of workshop format

The workshop format was designed and agreed upon in conjunction with HQIP's Executive and NCAPOP team members. The structure mirrored preceding workshops successfully hosted by HQIP (Appendix 2). Invitations to the workshop were disseminated through HQIP's NCAPOP mailing list and through the National Quality Improvement and Clinical Audit Network (NQICAN).

A total of 68 delegates or speakers attended the workshop (Appendix 3). The attendee cohort was representative of the different stakeholders and parties involved in the commissioning, delivery, analysis and regulation of healthcare (Table 1).

Stakeholder group	Number of participants
Audit suppliers, academic partners and medical charities	28
HQIP team members	15
Trust audit professionals/NQICAN representatives	13
Regulators (CQC)	6
Department of Health representatives (NHS England)	3
Service User Network (SUN) representatives	2
Commissioners	1

Table 1: Breakdown of attendees at the HQIP/CQC workshop

3. Description of workshop format (continued)

The workshop comprised a series of keynote presentations from Professor Sir Mike Richards (CQC's chief inspector of hospitals), Dr Marc Farr (director of informatics at East Kent Hospitals University NHS Foundation Trust), Ms Claire Palmer (head of clinical audit, King's College Hospital NHS Foundation Trust), Ms Anne Jones (head of clinical audit and effectiveness, Kingston Hospital) as well as a project update from Mr Sid Sinha (HQIP clinical fellow) each followed by audience discussion.

Copies of the following presentations are linked below and also available to view on the HQIP website here: http://www.hqip.org.uk/resources/hqip-cqc-workshop-november-2015/

- **Prof Sir Mike Richards: 'Assessing quality of hospital services – the important of National Clinical Audits'**
- **Dr Marc Farr: 'EKBI – Beautiful information 2.0'**
- **Ms Claire Palmer and Anne Jones: 'Challenges and benefits of supporting Trusts in forming an overview of NCA results'**
- **Mr Sidhartha Sinha: 'HQIP/CQC project update November 2015'**

Afternoon sessions comprised table discussion led by a nominated facilitator. Topics included: the process of optimising data flow to the CQC, managing the transition in providing the new data flow, achieving balance between quality assurance and quality improvement and the possible benefits and cautions associated with creating a co-localised, user-friendly, searchable resource containing hospital-level key metrics from across all NCAs and Clinical Outcome Review Programmes.

Discussions were not prescriptive and participants were free to digress to maximise feedback. Following the break-out sessions, each table summarised their findings to the floor enabling open discussion from all delegates.

4. Methodology

Qualitative methodology was used to analyse hand-written summaries of the individual table discussions. These summaries were made by the nominated facilitators alongside independently-minuted proceedings of the workshop to identify key themes.

Independent analysis of the free-text transcripts was undertaken by the authors (SS and DK) and was followed by joint interpretative discussions to determine over-arching common themes. These themes were further sorted into key sub-categories.

5. Findings

Six over-arching themes were identified and are listed below. The sub-categories forming the majority of content for each theme are then presented in turn.

Number	Theme
1	The need to optimise use of NCA data
2	Identifying the audience and the issue of context
3	Practicalities of developing a new data flow
4	Potential advantages of an NCA dashboard
5	Concerns and potential limitations with an NCA dashboard
6	Hosting an NCA dashboard

Table 2: Over-arching themes of discussion at the HQIP/CQC workshop

5.1 The need to optimise the use of NCA data

i. Support for the need to optimise the use of NCA data by the CQC

There was general agreement on the need to provide CQC with accurate, contemporaneous, key data to assist hospital inspectors in performing inspections and an appreciation of the reasons why the status quo was unsatisfactory.

ii. Recognition of the need to increase the utility of NCA data by Trusts

It was recognised that many of the issues that prevented CQC from utilising NCA data effectively were equally applicable to Trusts – both at clinical and at executive level.

The processes of data summarisation, co-localisation, user-friendly presentation and timely access were felt to be central to improving utility at clinical level and increasing the profile of NCA data at executive level. There was interest for such a resource to decrease the burden on Trust clinical audit departments.

5.2 Identifying the audience and the issue of context

i. Recognition that there is unlikely to be a "one size fits all" product or solution

The respective needs of different stakeholder groups such as patients, commissioners, providers of healthcare and regulators was felt to be a significant barrier to utilisation of NCA data. By extension, there was a consistent message that the primary intended end-user for any NCA resource needed to be clearly identified at the outset so that content and supporting contextual information would be appropriately pitched. The result of this was the recognition that perhaps multiple versions of a dashboard – each presenting the same data but in different ways – was preferable to attempting to create a single resource capable of delivering to all groups.

ii. The importance of contextual information

There was universal agreement that an NCA resource would need to be more than a simple collation of numerical information (such as an Excel spreadsheet) and that such data needed to be accompanied by appropriate contextual information.

However, there was some variability in attendee's interpretations of the term 'context' with definitions covering topics such as co-localisation of historical results, clear sign-posting to relevant national guidelines or standards, the ability to compare results against peers (other Trusts or hospitals), pathway context (e.g. where a particular Trust does not provide the service measured by a given 'key' metric) and explanation of any risk-adjustment methodologies (or otherwise) used. Others emphasised the need for any summative resource to include clear linkage to parent data sources (e.g. audit provider website or data.gov).

5.3 Practicalities of developing a new data flow

i. The need for clinical engagement

A strongly held belief was that rationalisation of metrics and development of any resultant NCA resource had to be done in partnership with audit providers (i.e. suppliers), audit participants (i.e. Trusts), commissioners and patients. This would allow the resulting data to meaningfully inform the CQC inspection process and for there to be buy-in by Trusts, commissioners and patients for the need for a resource such as a dashboard.

ii. The need to avoid duplication and to consider resource constraints

Understandably, several attendees voiced concerns about the multitude of data sources already in the public domain. While it was acknowledged that co-localisation was a laudable aim, this needed balancing against the fact that several NCA providers had already created data dashboards that are in clinical use. Furthermore, the difficulties in accommodating the increased costs and resources associated with a new data flow within an increasingly resource-constrained environment were highlighted.

5.4 Potential advantages of an NCA dashboard

i. Reduction of data burden and simplification

Excessively large data sets and the burden of data collection were highlighted by Trust representatives and the prospect of trying to systematically rationalise the data being collected was welcomed.

However, opposing view points were that such data reduction – particularly if attempted without clinical guidance – risked over-simplifying complex healthcare pathways and could encourage gaming.

ii. Co-localisation

It was recognised that co-localisation of NCA data in a cross-cutting manner was conspicuous by its absence and that collation and summarisation of results by Trust audit departments represented additional use of its resources on top of that needed for the preceding data collection. Entirely separately from data rationalisation and standardised presentation, co-localisation was felt to be a worthwhile step in a drive to improve the use of NCA data.

iii. Dynamism, contemporaneousness and interactivity

With specific reference to a product such as a dashboard for NCA data, there was support for key features of an electronic rather than paper-based resource. This was because features such as interactivity (e.g. ability to search by Trust, audit or even by national guideline or CQC key question) and personalisation (e.g. with links to Trust-level quality improvement initiatives [see point iv. below]) were felt to have the greatest potential to add value.

In addition, the importance of supplying contemporaneous data and the need for the resource to be iterative (i.e. periodically reviewed by HQIP, CQC and audit providers to ensure that the most relevant metrics continued to be prioritised) was emphasised.

iv. Alignment of quality assurance and quality improvement

There was some consensus that the project offered an opportunity for greater alignment between quality assurance (regulation) and quality improvement although this required careful balancing. Attendees suggested that provided that CQC inspection protocols were holistic, inclusive assessments of care and not purely data-driven exercises (involving selection of 'key' metrics with clinical buy-in which are iteratively reviewed), there was potential for alignment.

This would also require a Trust-level NCA dashboard, with the potential for individual Trusts to add quality improvement data (such as links to their own quality improvement initiatives, descriptions of changes undertaken to facilitate improvements in their NCA results and for recognition and celebration of good or improved performance).

5.5 Concerns and potential limitations with an NCA dashboard

i. Over-simplification

Several attendees pointed out that the result of data reduction was over-simplification and that this carried the risk of regulators, commissioners and patients drawing erroneous conclusions about the overall quality of complex care pathways (e.g. cancer care that is increasingly regionalised and driven by local MDT networks). It was also highlighted that while the nomination of a small number of 'key' metrics seemed simple, this would not remove the need to continue collecting additional data in order to carry out meaningful analyses (e.g. risk-adjustment to allow inter-provider comparisons).

ii. Data duplication

A recurring viewpoint was the problem with the numerous ways in which audit providers already disseminate their data and a genuine concern that endeavours to create new data flows or dashboards (rather than more efficiently using pre-existent ones) were duplicative and difficult to justify within a resource-constrained environment.

iii. Gaming and the prioritisation of minimum regulatory standards over genuine quality improvement

There was concern that the natural division between quality assurance and quality improvement would be insurmountable. This was raised particularly within the context of financial pressures in the modern NHS and the public scrutiny associated with inspection of, and (in particular adverse) judgements about, the quality of care delivery. Attendees were concerned that reduction of data volume in conjunction with publicity that they represented 'key' metrics used by the CQC for inspection would lead to pressure on Trusts to focus purely on those metrics (at the expense of others) and to strive for meeting the 'minimum acceptable standard' rather than genuine iterative quality improvement.

5.6 Hosting an NCA dashboard

i. Ownership

Aligning with concerns about data duplication, several attendees felt that a collated NCA resource needed to be created in conjunction with oversight from NHS England. This would – at the very least – provide an opportunity for duplicative effort to be identified and either reduced or re-directed.

ii. Responsibility

Acknowledging that the audit providers were the ultimate suppliers and quality assurers of NCA data, some attendees felt that a degree of oversight needed to be retained by NCA providers over any collated resource.

6. Discussion

The overall sentiment from the workshop was positive with an appreciation that NCA data could be better utilised for both quality assurance and quality improvement. Aligning quality improvement and quality assurance can be a challenge as the latter characteristically focusses on compliance with standards whilst genuine quality improvement concentrates on iterative, positive change to achieve best practice[5].

Traditionally, the need for reflection, repeat data collection and practice change separates the two endeavours. An additional concern is the potential loss of valuable information associated with data reduction, particularly when attempting to assess complex services like cancer care and the opportunity that this creates for 'gaming' whereby providers focus purely on highlighted metrics at the expense of related metrics or the overall quality of care.

However, the iterative nature of the CQC's inspection schedule (i.e. re-visiting Trusts) as well as a more humanistic, patient-centred approach to inspection (i.e. looking beyond the actual numbers and asking what improvement strategies have been employed subsequently) on a more holistic level should alleviate these concerns. Furthermore, the distillation of large amounts of data into key metrics is aimed to provide an overview of effective care in an organisation, a starting point from which quality improvement can be sought, at both clinical and executive level.

The importance of clinical buy-in to drive interest and improvement in this process cannot be over-emphasised. HQIP and CQC have undertaken this project in collaboration with NCA providers and will continue to do so through to commencement of data flow and beyond. A key part of the project has been the development of closer links between the CQC and NCA providers to facilitate the improvements in consistency of use of NCA data. HQIP and CQC will continue to engage with NCA providers in the future at periodic intervals to ensure that selected metrics remain relevant to modern clinical practice.

It is noteworthy that several reservations regarding the proposed project seemed to be extensions of concerns voiced regarding the actual collection, dissemination and interpretation of NCA data and described in preceding documents published by HQIP (http://www.hqip.org.uk/resources/engaging-clinicians-in-qi-through-clinical-audit-report/). Therefore, whilst this project will attempt to collate key information from across the spectrum of NCAs to standardise presentational aspects and to summarise supporting contextual information within the CQC's pre-inspection data packs, it is likely that moves to streamline NCA datasets, to align competing yet related NCAs and to improve frequency and style of outputs will require central changes (i.e. at specification and development level).

The potential for an NCA dashboard to benefit quality improvement initiatives at Trust level was noted and HQIP and CQC will explore how such a resource can be made available. It should be acknowledged that it is unlikely that such a resource will be universally applicable and equally useful to all stakeholder groups in its first iteration.

Any newly developed NCA dashboard will require on-going refinement informed by feedback from Trusts, clinical audit networks, commissioners and patients and this may result in the creation of different sub-types of resource for different groups in the future. The differing needs of stakeholders are likely to be one contributory factor to the ongoing problem of duplication within the various data flows and IT landscape of the modern NHS. HQIP will endeavour to engage with involved parties to address concerns about the continued expansion and duplication of NCA data flows.

7. Conclusion

Key challenges for the CQC and HQIP are, respectively, to ensure consistency in judgement and to enshrine clinical audit at the heart of quality improvement. This can be achieved through continued engagement with subject experts and users of data to rationalise and prioritise the information collected from NCAs into a consistent, easy reproduced and accessible format upon which judgements on quality of care delivered can be made and meaningful quality improvement activity focused.

References

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Definitions/Glossary

CQC – Care Quality Commission

HQIP – Healthcare Quality Improvement Partnership

NAGCAE - National Advisory Group on Clinical Audit and Enquiries

NCA – National Clinical Audit

NCAPOP – National Clinical Audit and Patient Outcomes Programme

NQICAN – National Quality Improvement and Clinical Audit Network

Acknowledgements

The authors are grateful to HQIP's central support and NCAPOP teams for their assistance in organising the workshop and associated communications as well as to Ms Linda Haines for administrative support in minuting the proceedings of the workshop.

Appendix 1: Steering Group Membership

Jane Ingham, chief executive officer, HQIP

Professor Danny Keenan, medical director, HQIP

Jenny Mooney, then director of operations, NCAPOP

Dr Yvonne Silove, associate director for quality and development, HQIP

Mr Sidhartha Sinha, clinical fellow, HQIP

Ms Anna Kisielewska programme, support officer, HQIP

Professor Sir Mike Richards, chief inspector of hospitals, CQC

Professor Edward Baker, deputy chief Inspector of hospitals, CQC

Mr David Harvey, head of provider analytics, CQC

Mr Sundeep Thusu, clinical fellow, CQC

Mr Nick Aresti, clinical fellow, CQC

Mr Jon Shelton, provider analytics manager, CQC

Dr Ian Woolhouse, clinical lead, national lung cancer audit

Dr David Cromwell, lead methodologist NVR, NELA and OGCNA

Geraldine Waters, NAGCAE representative

Carl Walker, NQICAN representative

Anne Jones, Trust audit professional , Kingston Hospital

Josceline Miles, Trust audit professional, King's College Hospital NHS Foundation Trust

Claire Palmer, Trust audit professional, King's College Hospital NHS Foundation Trust

Professor Mike Dent, HQIP Service User Network representative

Dr Sarah Markham, HQIP Service User Network representative

Dr Sonia Renwick, associate medical director, Royal Free Hospital NHS Foundation Trust

Dr David Harrison, senior statistician, ICNARC

Richard Arnold, clinical programmes lead (Medical Directorate), NHS England

Appendix 2: Workshop flyer and agenda

NCAPOP workshop: using trust level National Clinical Audit data to support quality assurance and quality improvement

The aim of this workshop is to facilitate discussion about the collaborative HQIP and CQC endeavour to optimise the use of National Clinical Audit (NCA) data and about the format, content, location and accessibility of a proposed trust-level cross-NCA data dashboard.

Date: **Thursday 12 November 2015**

Venue: **Grange City Hotel, 8-14 Cooper's Row, London EC3N 2BQ**

Time: **10.00am – 4.00pm**

Booking here: Using Eventbrite, your place will be confirmed once you receive an email from HQIP

The programme will be facilitated by Mr Sidhartha Sinha, HQIP Clinical fellow and chaired by HQIP Medical director Prof Danny Keenan. The day will be comprised of guest speakers in the morning followed by break-out table discussions covering a number of topics relevant to the project and the dashboard. Using facilitated dialogue, the workshop consists of discussion and real-time feedback to both distil and amalgamate ideas which will lead to a dashboard of maximal utility in the field of quality improvement. The day builds to and closes with a detailed review to build on, critique and validate the shared aim.

- **Registrations & refreshments**
- **Chair's welcome**
  Prof Danny Keenan, *Medical director, HQIP*
- **The CQC regulatory process and NCA data**
  Prof Sir Mike Richards, *Chief inspector of hospitals, CQC*
- **Data dashboards - format, functions and limitations**
  Dr Marc Farr, *Director of information, East Kent Hospitals NHS FT*
- **The challenges and benefits of supporting trusts forming an overview of its NCA results**
  Anne Jones, *Head of clinical audit and effectiveness*, *Kingston Hospital NHS FT* and **Claire Palmer**, *Head of clinical audit and effectiveness*, *King's College Hospital NHS FT*
- **HQIP / CQC project: update**
  Mr Sid Sinha, *Clinical fellow, HQIP*
- **Break-out: table discussions**
  Prof Danny Keenan, *Medical director, HQIP*
  - Establishing a new optimised flow of NCA data for CQC regulation: managing the transition
  - An NCA data dashboard: top 10 'most wanted' features
  - An NCA data dashboard: Top 10 concerns / potential limitations
  - An NCA data dashboard: practical considerations
- **Feedback from break-out table discussions and general discussions**
  Prof Danny Keenan, *Medical director, HQIP*
- **Chair's closing remarks**
  Prof Danny Keenan, *Medical director, HQIP*

Appendix 3: Workshop attendees

Rebecca Smittenaar, Cancer Research UK
Nick Aresti, Care Quality Commission
Laura Crosby, Care Quality Commission
Alexander George, Care Quality Commission
Mike Richards, Care Quality Commission
Jon Shelton, Care Quality Commission
Sundeep Thusu, Care Quality Commission
Marc Farr, East Kent Hospitals University NHS Foundation Trust
Sue Patterson, Griffith University
Cher Cartwright, Health and Social Care Information Centre
Sally Fereday, Healthcare Quality Improvement Partnership
Linda Haines, Healthcare Quality Improvement Partnership
Miranda Heneghan, Healthcare Quality Improvement Partnership
Tasneem Hoosain, Healthcare Quality Improvement Partnership
Judith Hughes, Healthcare Quality Improvement Partnership
Jane Ingham, Healthcare Quality Improvement Partnership
Danny Keenan, Healthcare Quality Improvement Partnership
Sarah Markham, Healthcare Quality Improvement Partnership (SUN member)
Bren McInerney, Healthcare Quality Improvement Partnership (SUN member)
David McKinlay, Healthcare Quality Improvement Partnership
Eleanor Mitchell-Heggs, Healthcare Quality Improvement Partnership
Jenny Mooney, Healthcare Quality Improvement Partnership
Priya Oomahdat, Healthcare Quality Improvement Partnership
Vivien Seagrove, Healthcare Quality Improvement Partnership
Yvonne Silove, Healthcare Quality Improvement Partnership
Sidhartha Sinha, Healthcare Quality Improvement Partnership
James Thornton, Healthcare Quality Improvement Partnership
Kirsten Windfuhr, Healthcare Quality Improvement Partnership
Tim Russell, ICNARC
Sue Venables, Kent & Medway NHS Partnership Trust
Claire Palmer, Kings College Hospitals NHS Foundation Trust
Roxana van der Stay, Kings College London
Anne Jones, Kingston Hospital NHS Foundation Trust
Catherine Dunn, Lancashire Care
Jan van der Meulen, London School of Hygiene and Tropical Medicine
Katy Sinka, MEDFASH and Public Health England
Melvina Woode Owusu, MEDFASH and Public Health England
Carl Walker, National Quality Improvement & Clinical Audit Network
Karina Gajewska, NHS England
Beth McGeever, NHS England
Dan Hughes-Morgan, NHS England
Helen Collins, NHS Guildford and Waverley Clinical Commissioning Group
Akosua Donkor, NICOR, University College London
Lucia Gavalova, NICOR, University College London
Jose Lourtie, Royal College of Anaesthetists
Dimitri Papadimitriou, Royal College of Anaesthetists
Martina Olaitan, Royal College of Ophthalmologist

Appendix 3: Workshop attendees (continued)

Beth Barnes, Royal College of Ophthalmologists
Calvin Down, Royal College of Paediatrics and Child Health
Alison Elderfield, Royal College of Paediatrics and Child Health
Chris Boulton, Royal College of Physicians
Alex Hoffman, Royal College of Physicians
Janet Husk, Royal College of Physicians
Sion Morris, Royal College of Physicians
Rachel Otago, Royal College of Physicians
Roz Stanley, Royal College of Physicians
Jessica Watts, Royal College of Physicians
Amy Lawson, Royal College of Psychiatrists
Sonia Renwick, Royal Free London NHS Foundation Trust
Bob Young, Salford Royal Hospital
Sam McIntyre, Royal College of Emergency Medicine
Mira Varagunam, Royal College of Surgeons of England
Maralyn Woodford, TARN
Sharon Sinha, United Lincolnshire Hospitals Trust
Stuart Metcalfe, University Hospitals Bristol NHS Foundation Trust
Roger Parslow, University of Leeds
Liz Draper, University of Leicester
Renata Bozikovova, Worcestershire Health & Care NHS Trust
Jan Micallef, YEARN (Yorkshire Effectiveness and Audit Regional Network)