Royal College of Physicians | National Respiratory Audit Programme (NRAP)

Room to breathe

A longitudinal review of respiratory data

2024–25 data from people with asthma and COPD (chronic obstructive pulmonary disease) admitted to hospital with an exacerbation, and people assessed for pulmonary rehabilitation between 1 April 2024 – 31 March 2025.

Publication year: 2026

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Through this report, KPIs are referenced for the periods 2024–25, 2023–24, 2022–23 and 2022–21.

For more information relating to the calculation of the KPIs for these periods, please access the methodology report.

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Introduction

The National Respiratory Audit Programme (NRAP) plays a vital role in supporting patient-facing services to understand the quality of the care that they deliver and provides a representative national picture of respiratory care. This year, NRAP reports on data from around 100,000 acute admissions and nearly 48,000 pulmonary rehabilitation assessments, offering unparalleled insight into clinical practice and patient outcomes across England and Wales.

NRAP continues to work closely with funders and the Healthcare Quality Improvement Partnership (HQIP), focusing on making full use of this rich dataset to drive meaningful improvement and better outcomes for patients. This year's report provides a focused update on progress against key performance indicators (KPIs) across the workstreams from 2021/22 to 2024/25. Encouragingly, the chronic obstructive pulmonary disease (COPD), children and young people asthma (CYPA), and pulmonary rehabilitation (PR) workstreams are starting to show signs of overall improvement in KPIs that reflect the delivery of the fundamentals of care – such as safe oxygen prescribing, access to tobacco dependence support and completion of discharge bundles – despite the huge operational pressures in acute settings. This progress is a testament to the hard work and commitment of clinical teams and the impact of targeted healthcare improvement strategies.

In contrast, overall performance in adult asthma (AA) KPIs remains more static over time, despite many examples of excellent practice. This highlights the challenges in delivering best practice at scale and the need to understand the factors associated with successful delivery of high-quality care. Recent evidence emerging from NRAP demonstrates that the implementation of discharge bundles can improve clinical outcomes, including reducing readmissions, reinforcing the need for widespread adoption.

Collaborative partnerships formed to address these challenges are more important than ever. We are pleased to see critical collaborative work with the British Thoracic Society (BTS), the Royal College of Emergency Medicine (RCEM) and the Society for Acute Medicine (SAM) to improve care in the first hours of admission – a period that is crucial for patient outcomes. This follows the recommendation made in our 2023/24 report *Catching our breath*.[1]

Looking ahead, NRAP will be central to national initiatives, including the NHS England and Office for Life Sciences Respiratory Transformation Partnership, driving improvement in respiratory outcomes through data-driven care. We are also exploring digital, automated data analysis to support timely and optimal access to emerging therapies, including biologics, and to scope chronic disease areas for future audit development.

Case ascertainment and service participation

	COPD	AA	CYPA	PR
Cases reported	131,381	41,496	19,653	55,636
Cases submitted to NRAP	68,594	20,500	14,639	41,679
Case ascertainment	52.2%	49.4%	74.5%	74.9%*
Service participation	179	170	159	181

Cases reported: Number of cases reported to Hospital Episode Statistics (HES England), Patient Episode Database for Wales (PEDW) and via the NRAP survey for pulmonary rehabilitation.
Service participation: Number of eligible services submitting data to NRAP.

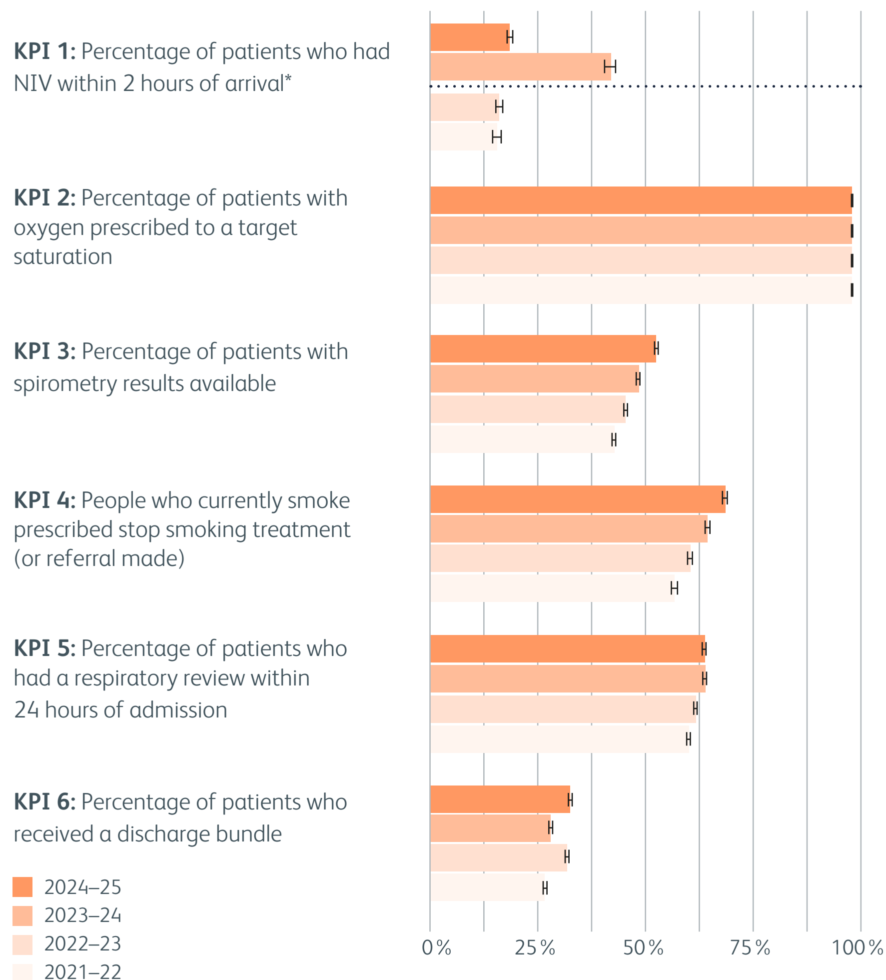
High case ascertainment and strong service participation are vital to the NRAP audit. Service participation continues to increase with 676 participating sites across the workstreams in 2023/24 increasing to 690 in 2024/25. Thorough identification of relevant cases ensures that data accurately reflect current practices. Consistent involvement from services allows them to implement data-driven quality improvement activity at site level. Together, these elements strengthen the audit's findings and its usefulness in guiding practice and policy decisions.

* For pulmonary rehabilitation, figures for cases reported and cases entered into the audit include data only from services who completed the NRAP case ascertainment survey in October 2025. The number of cases used to calculate case ascertainment will therefore differ from the overall number of cases reported on page 4.

	COPD		Adult asthma		Children and young people asthma		Pulmonary rehabilitation	
	n	%	n	%	n	%	n	%
Country								
England	65,671	-	19,616	-	13,770	–	45,985	–
Wales	2,923	-	884	-	944	–	1,249	–
All	68,594	-	20,500	-	14,714	–	47,234	–
Gender								
Male	30,719	44.8	6,089	29.7	9,143	62.1	23,814	50.4
Female	37,767	55.1	14,352	70.0	5,548	37.7	23,247	49.4
Transgender	13	0.0	11	0.1	<5	0.0	12	0.0
Other	5	0.0	5	0.0	<5	0.0	<5	0.0
Not recorded	90	0.1	47	0.2	20	0.1	57	0.1
Age								
Median	73	-	52	-	6	–	71	–
Lower quartile	65	-	36	-	5	–	63	–
Upper quartile	79	-	66	-	9	–	77	–
IMD quintile								
1 (most deprived)	24,633	35.9	5,953	29.0	4,297	29.2	10,778	22.8
2	16,049	23.4	4,573	22.3	3,328	22.6	10,397	22.0
3	12,011	17.5	3,907	19.1	2,775	18.9	9,421	19.9
4	9,467	13.8	3,247	15.8	2,147	14.6	8,867	18.8
5 (least deprived)	5,900	8.6	2,600	12.7	2,031	13.8	7,472	15.8
Missing/unavailable	534	0.8	220	1.1	136	0.9	299	0.6

Fig 1. Admissions to hospital for exacerbations of COPD and asthma (adults and children and young people), and assessments for pulmonary rehabilitation, between 1 April 2024 – 31 March 2025 by socio-demographic characteristics.
n: Numerator <5: Less than 5 patients. This is suppressed to avoid patient identification.

KPI over time: COPD



* The definition of KPI1 changed in 2023–24. Please see methodology report for more information.

Click here to access service-level benchmarked COPD KPI data for 2024/25

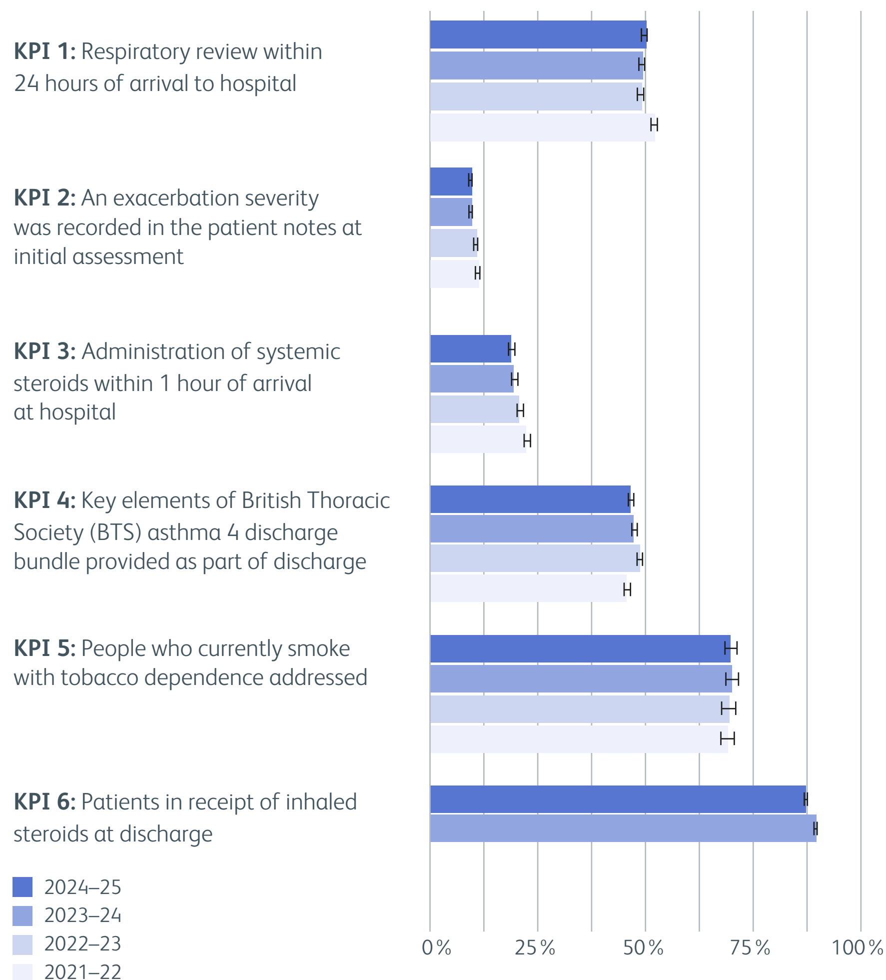
Performance against key priorities of care for COPD shows a steady trend of improvement across several domains. Excellent practice in prescribing oxygen to a target saturation has been maintained, in line with BTS emergency oxygen guidelines and quality standards, demonstrating that quality improvement gains can be sustained if monitored.

There has also been important improvement in people who currently smoke being offered tobacco dependency advice, in line with NICE (National Institute for Health and Care Excellence) guidance, and this is likely to have been supported by NHS Long Term Plan funding for acute services. However, there is still significant variation in the numbers of hospital-based tobacco dependence staff reported by services.[2]

Importantly, the prevalence of tobacco dependence among hospitalised patients with COPD is currently 37% and has remained between 32% and 37% over the past decade, suggesting significant missed opportunities for prevention before admission. Increased focus on tobacco dependence across systems, with opportunities emerging for neighbourhood care approaches, could be beneficial. There is a positive trend in the percentage of patients with an available spirometry result, but this is still only true for one in two patients. This likely reflects ongoing variation in the provision of, and access to, quality-assured diagnostic spirometry nationally, as well as the possible impact of this on the acute pathway. It would be appropriate to increase focus across systems, ensuring that people at risk of COPD receive timely and accurate diagnosis and that high-value care is delivered.

Other areas of quality improvement requiring attention include the first hours of care for patients with COPD who have acute respiratory failure requiring non-invasive ventilation (NIV); access to specialist review within 24 hours, and completion of the COPD discharge bundle. Performance against these KPIs is not improving and remains below optimal, especially access to acute NIV within 2 hours, which is a potentially lifesaving treatment. This is likely to reflect operational and workforce pressures across the whole acute pathway and should be an area of specific focus for services, requiring joint working across emergency medicine and respiratory teams.

KPI over time: adult asthma



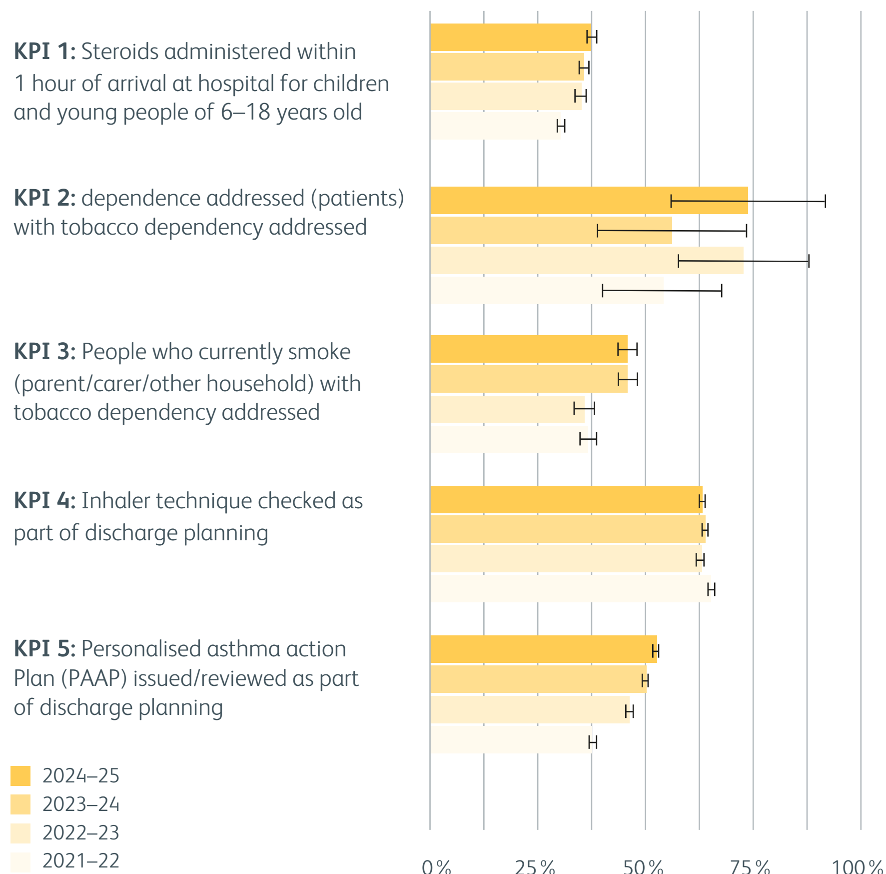
Performance has remained static across all KPIs over the past 4 years, highlighting the urgent need for re-energised healthcare improvement (HI) initiatives at both national and service levels. Opportunities for this are evident in the first hour of care and in the provision of discharge bundles.

The first hour of care is consistently linked to the lowest performing KPI, with a median time of 3.2 hours from arrival to receipt of oral corticosteroids. While this figure may reflect overall pressure in emergency departments across the country, a Cochrane review concluded that early receipt of oral steroids (<1 hour) is associated with a reduced need for hospital admission,[3] and therefore represents an opportunity to ease admission pressures on secondary care. Following the 2023/24 NRAP audit report *Catching our breath*,[1] BTS, RCEM and SAM are developing assessment pathways as a national healthcare improvement project in asthma and COPD, aimed at improving rapid assessment of severity and the delivery of guideline-based care on arrival to hospital. The prescription of steroids within the triage department via Patient Group Directions is also being explored as part of this work. Its impact will be monitored through changes in KPI data over the next 12–24 months, as captured by the NRAP audit.

The BTS asthma attack 4 discharge bundle was launched in January 2024. There is wide variation in the provision of discharge bundles across hospitals, with 8.3% of hospitals providing all core elements of the bundle to 90%+ of their patients, while 24.3% of hospitals achieved this in less than 10% of cases. Data from 2022–23 demonstrate an association between the provision of the discharge bundle and reduced readmission.[4] The performance of the top 8.3% of hospitals shows that this quality of care is achievable.

Click here to access service-level benchmarked AA KPI data for 2024/25

KPI over time: children and young people asthma



CYP asthma KPIs remained broadly stable over years, with gradual improvement only observed within KPI5: provision of personalised asthma action plans (PAAP). The administration of systemic corticosteroids is considered the gold standard in an acute asthma attack and is known to reduce the risk of hospital admission, particularly in patients with severe asthma.[3] Our data show that despite over 80 % of children and young people being admitted with a severe or life-threatening asthma attack, only 38 % received the recommended treatment within 1 hour. We observe, however, a small trend towards improvement in this metric over the years (from 35 % in 2021/22 to 38 % in 2024/25). Progress may be limited by the requirement for clinician prescription before treatment can be administered, and NRAP is producing a Patient Direction to combat this, with impact being monitored by the KPI data.

Inhaler technique check and provision of a PAAP are both core elements of good discharge, as outlined in the National bundle of care for children and young people with asthma. Both interventions reduce the risk of future hospital admissions and improve the self-management of asthma. Despite that, only 63 % of children had their inhaler technique checked at discharge in 2024/25 and just over half of the children (52 %) received a personalised asthma action plan.

The lack of significant improvement in the above metrics may be related to workforce provision and capacity. The data from the latest NRAP organisational audit[2] showed that only 38.8 % of hospitals had the recommended asthma nurse-to-admission ratio of one asthma nurse per 300 asthma admissions per year. At the time of the audit, the same nurse-to-patient ratio was used as for adult patients. In August 2025, the BPRS (British Paediatric Respiratory Society) published a staff ratio specifically for child patients: one nurse per 167 admissions. This recommendation came directly from the findings of the NRAP organisational audit. Since the publication of the BPRS recommended ratio, the paediatric standard is one nurse per 167 admissions (equivalent to 1.5 asthma nurses per 250 admissions). The vast majority of discharge care is delivered by nurses, and without increasing the number of asthma nurses, improvement in the outcomes will be challenging.

Click here to access service-level benchmarked CYP KPI data for 2024/25

KPI over time: pulmonary rehabilitation

KPI 1: Start date for pulmonary rehabilitation (PR) offered within 90 days of receipt of referral for all people referred with stable COPD

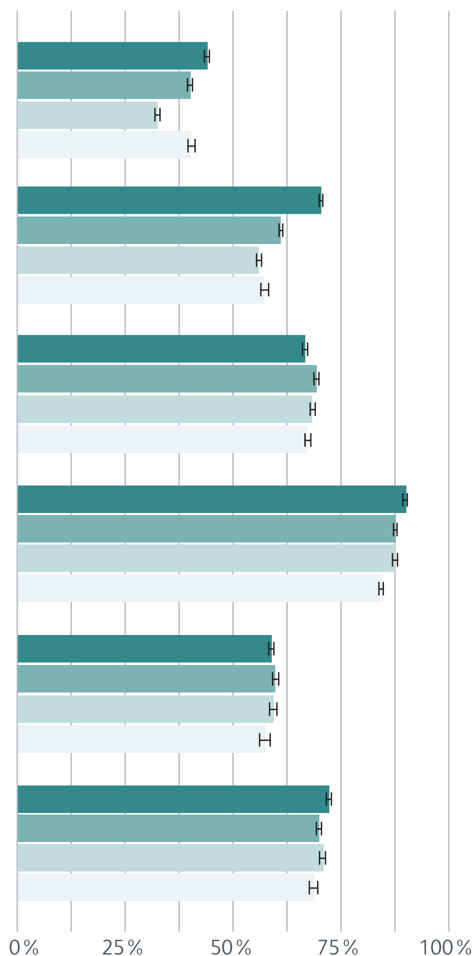
KPI 2: People undertake a practice exercise test (for incremental shuttle walk test (ISWT) or 6-minute walk test (6MWT))

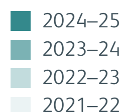
KPI 3: People enrolled for PR go on to have a discharge assessment

KPI 4: A written individualised discharge exercise plan is provided as part of discharge assessment

KPI 5: Minimal clinically important difference (MCID) achieved on one walking test

KPI 6: Minimal clinically important difference (MCID) achieved on at least one health status questionnaire





Click here to access service-level benchmarked PR KPI data for 2024/25

This is the first full cohort of the NRAP PR audit containing all chronic respiratory diseases. The data present insights on all patients assessed for pulmonary rehabilitation from April 2024 – March 2025. This presents a significant increase in case submissions to the NRAP PR audit, from 27,507 cases in the 2023–24 cohort compared with 47,234 in the 2024–25 cohort.

Data show that there has been an improvement in services meeting KPI 2: undertaking a practice walk test, which has increased from 57% in 2021–22 to 70% in 2024–25. This was identified as a key area for improvement in the *Catching our breath* report. To further support services in achieving this KPI, NRAP has updated the dataset wording to increase clarity – from 'practice walk test' to 'two walk tests'.

Performance within KPI3, provision of discharge assessment, had declined in this cohort. This indicator reflects the proportion of people enrolled in PR who go on to complete the programme – an outcome we would expect to improve. There has been a steady increase in the number of service users receiving a written individualised exercise plan at discharge (KPI 4), and largely consistent performance in service users achieving the MCID in a walking test and/or a health status questionnaire (KPI 5/6). It is encouraging that the majority of service users improve their exercise tolerance and health-related quality of life by at least the MCID.

Despite high-quality service being delivered, less than half of service users are offered a start date for PR within 90 days of receipt of referral (KPI1), reducing timely access to PR. On average, people with stable COPD waited 100 days between referral and the start of PR, an improvement from the 107-day average wait time in 2023–24. This was a key recommendation in the *Breathing well* report[5] and suggests there is an ongoing capacity issue, with improvement in the referral pathway required. Improving the referral pathway will enable more eligible people with symptomatic respiratory conditions to engage in PR, which has been shown to improve quality of life, reduce hospital admissions and ease pressure on the healthcare system.

Making improvements

The longitudinal data presented throughout this report generally demonstrate minimal improvement in the key performance indicators between 2021 and 2025, with only a limited number of exceptions. Consequently, NRAP will not be issuing further recommendations in this annual report. Instead, we strongly encourage decision makers to revisit the recommendations set out in our 2025 report, *Catching our breath*:[1]

1. Integrated care boards and local health boards should mandate all eligible services to participate in NRAP to achieve 100% service participation and a minimum of 50% case ascertainment in NRAP audits.

2. The British Thoracic Society, as the expert body, leads the development of a standardised acute care bundle for patients with asthma and COPD on arrival to hospital.

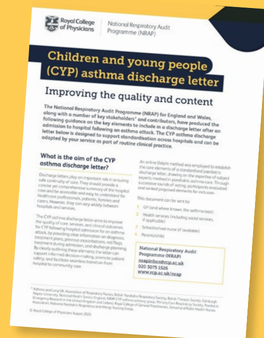
   Known action: The British Thoracic Society is working collaboratively with the Royal College of Emergency Medicine and the Society for Acute Medicine to implement this recommendation and improve care in the first hours of admission.

3. All people with COPD and asthma who smoke, and people who smoke who are parents of children and young people with asthma, should be offered evidence-based treatment and referral for tobacco dependency.

In addition, hospitals and services are urged to make use of the comprehensive healthcare improvement resources available on page 10 of this report, as well as the wider materials available on the NRAP website. NRAP will be launching an additional healthcare improvement programme in 2026. We recommend that trusts, and those managing hospital services, ensure that healthcare staff are afforded the necessary time and resources to participate fully in this initiative.

Children and young people

The CYP workstream produced a template discharge letter to improve communication between primary care, secondary care, patients and their caregivers.


Children and young people (CYP) asthma discharge letter
Improving the quality and content

PR service referral within 90 days

This case study shows how one PR service increased the proportion of patients with referral-to-start date within 90 days for stable COPD.

2022–23	94%
2023–24	98%

Assessment pathways

Following the 2023/24 NRAP audit report *Catching our breath*, BTS, RCEM and SAM are developing assessment pathways as a national healthcare improvement project, aimed at improving rapid assessment of severity and the delivery of guideline-based care on arrival to hospital.

Support for services

COPD: Improving provision of discharge bundles

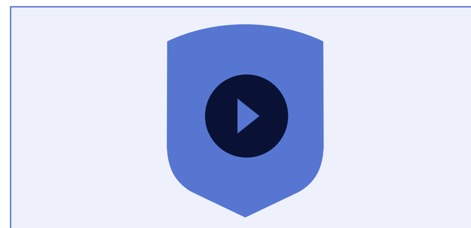
Improving KPI6

Good practice case studies for COPD services

Adult asthma: Improving provision of discharge bundles

Improving KPI4

Good practice case studies for adult asthma services



Children and young people asthma: Improving access to steroids within 1 hour of arrival

Using NRAP PGD template to improve KPI1

Good practice case studies for children and young people asthma services

Pulmonary rehabilitation: Improving completion of practice walk tests

Improving KPI2

Good practice case studies for pulmonary rehabilitation services

Royal College of Physicians

The Royal College of Physicians (RCP) plays a leading role in the delivery of high-quality patient care by setting standards of medical practice and promoting clinical excellence. The RCP provides physicians in over 30 medical specialties with education, training and support throughout their careers. As an independent charity representing around 40,000 fellows and members worldwide, the RCP advises and works with government, patients, allied healthcare professionals and the public to improve health and healthcare.

Healthcare Quality Improvement Partnership

The National Respiratory Audit Programme (NRAP) is commissioned by the Healthcare Quality Improvement Partnership (HQIP) and funded by NHS England and the government of Wales as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP).

National Respiratory Audit Programme (NRAP)

The National Respiratory Audit Programme (NRAP) aims to improve the quality of the care, services and clinical outcomes for patients with respiratory disease across England and Wales. It does this by using data to support and train clinicians, empowering people living with respiratory disease, and their carers, and informing national and local policy. NRAP has a track record of delivery and is critical in assessing progress against the NHS Long Term Plan. To find out more about NRAP, visit our website.

Acknowledgements

The project team acknowledges the efforts of all contributors; a complete list is available here.

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