

ESPAUR Report 2021 to 2022 Chapter 5: NHS England Improvement and Assurance Schemes [†]

Kieran Hand ^{1,*}, Diane Ashiru-Oredope ², Elizabeth Beech ¹, Sabine Bou-Antoun ², Gillian Damant ¹, Naomi Fleming ¹, Catherine Hayes ², Philip Howard ¹, Conor Jamieson ¹, Monsey McLeod ¹, Sejal Parekh ³, Preety Ramdutt ¹, Hanna Squire ², Laura Whitney ¹ and Jeff Featherstone ^{4,*}

¹ Antimicrobial Prescribing and Medicines Optimisation (APMO) Workstream, AMR Programme, NHS England, London SE1 8UG, UK

² HCAI, Fungal, AMR, AMU & Sepsis Division, UK Health Security Agency, London SW1P 3HX, UK

³ Community Services and Strategy Directorate, Primary Care, NHS England, London SE1 8UG, UK

⁴ AMR Programme, NHS England, Leeds LS2 7UE, UK

* Correspondence: kieran.hand@nhs.net (K.H.); jefffeatherstone@nhs.net (J.F.)

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Abstract: NHS England designs and administers improvement and assurance schemes that include elements to incentivize prudent use of antimicrobials, optimise patient outcomes, minimise avoidable exposure to antimicrobials, and reduce selection pressure for antimicrobial resistance (AMR). These schemes include the NHS System Oversight Framework, the Pharmacy Quality Scheme for community pharmacies, the NHS Standard Contract, and the Commissioning for Quality and Innovation (CQUIN) framework. This report describes the schemes implemented from 2021 to 2022, and it reports the scheme performance of NHS commissioners and healthcare provider organisations. A summary of improvement and assurance schemes from 2022 to 2023 is also provided.

Keywords: antimicrobial stewardship; antimicrobial resistance; policy; prescribing; medicines optimisation; improvement; assurance



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1. Introduction

This report summarises improvement and assurance schemes relevant to antimicrobial use that are designed and administered by NHS England through contractual frameworks with healthcare commissioners and providers and reported in the annual report of the English Surveillance Programme for Antimicrobial Use and Resistance (ESPAUR) [1]. The schemes aim to incentivize the prudent use of antimicrobials to optimise patient outcomes, minimise avoidable exposure to antimicrobials, and reduce selection pressure for antimicrobial resistance (AMR).

2. Primary Care—Reducing Avoidable Antibiotic Prescribing

2.1. The NHS System Oversight Framework

The NHS System Oversight Framework provides clarity to integrated care systems, acute hospital trusts and commissioners on how NHS England will monitor performance, sets expectations on working together to maintain and improve the quality of care, and describes how identified support needs will be addressed to improve standards and how outcomes will be coordinated and delivered [2]. Integrated care systems (ICSs) are partnerships of organisations that come together to plan and deliver joined-up health and care services and to improve the lives of people who live and work in their area.

2.2. The NHS System Oversight Framework Metrics and Targets for 2021–2022

The NHS System Oversight Framework from 2021 to 2022 includes two AMR-related metrics, both applicable to primary care. Clinical Commissioning Groups—*Antimicrobial resistance: appropriate prescribing of antibiotics and broad-spectrum antibiotics in primary care*. Clinical commissioning groups (CCGs) were created in England following the Health and Social Care Act in 2012 and replaced primary care trusts on 1 April 2013. They were clinically-led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area. As of 1 April 2021, following a series of mergers, there were 106 CCGs in England. However, they were dissolved in July 2022, and their duties were taken on by the new integrated care systems (ICSs). The metrics and associated targets are set out in Table 1. The target for total prescribing of antibiotics is aligned with the UK AMR National Action Plan's (2019–2024) ambition to reduce community antibiotic prescribing by 25% from a 2013 baseline by 2024 [3].

Table 1. NHS System Oversight metrics and targets for antibiotic prescribing.

Code	AMR Metric Description	Target ¹
SO44a	Antimicrobial resistance: total prescribing of antibiotics in primary care The number of antibiotic (antibacterial) items prescribed in primary care, divided by the item-based Specific Therapeutic Group Age-Sex Related Prescribing Unit (STAR-PU) per annum.	At or less than 0.871 items per STAR-PU
SO44b	Antimicrobial resistance: proportion of broad-spectrum antibiotic prescribing in primary care The number of broad-spectrum antibiotic (antibacterial) items from co-amoxiclav, cephalosporin class, and fluoroquinolone class drugs as a percentage of the total number of antibacterial items prescribed in primary care.	At or less than 10%

¹ Target achievement date: 31 March 2024.

2.3. Performance against the NHS System Oversight Framework for 2021–2022

Human exposure to antibiotics in primary care is expressed as the number of prescription items (numerator) per registered patient (denominator) adjusted for population age and sex demographics using the Specific Therapeutic Group Age-Sex Related Prescribing Unit (STAR-PU) system. [4] For the 12 months to 31 March 2022, the number of ICSs meeting the target for total prescribing of antibiotics at or less than 0.871 items per STAR-PU was 21/42 (50%) and the number of ICSs meeting the target for broad-spectrum antibiotic prescribing at or less than 10% was 35/42 (83%). The number of ICSs meeting both targets was 17/42 (40%).

For the 12 months to 31 March 2022, the number of CCGs meeting the target for total prescribing of antibiotics at or less than 0.871 items per STAR-PU was 36/106 (34%), and the number of CCGs meeting the target for broad-spectrum antibiotic prescribing less than 10% was 89/106 (84%). The number of CCGs meeting both targets was 29/106 (27%).

3. Community Pharmacy—The NHS Pharmacy Quality Scheme

3.1. The Pharmacy Quality Scheme

The Pharmacy Quality Scheme (PQS) forms part of the Community Pharmacy Contractual Framework (CPCF) for England. It supports the delivery of the NHS Long Term Plan and rewards community pharmacy contractors that deliver quality criteria in three quality dimensions: clinical effectiveness, patient safety, and patient experience [5].

3.2. The Pharmacy Quality Scheme Metrics and Targets for 2021–2022

The Antimicrobial Stewardship (AMS) criterion of the 2021–2022 Pharmacy Quality Scheme included a rollout of the Treat Antibiotics Responsibly, Guidance, Education, and Tools (TARGET) Antibiotic Checklist to community pharmacies in England [6]. Pharmacy teams were required to submit evidence that they had reviewed their current AMS practise using the TARGET Antibiotic Checklist, to be carried out over four weeks with a minimum of 25 patients, or up to eight weeks if the minimum number of patients was not achieved within four weeks. 74% of community pharmacies in England submitted audit data, and 213,105 checklists were completed with patients.

3.3. Performance against the Pharmacy Quality Scheme for 2021–2022

The PQS ran from 1 September 2021 to 31 March 2022, and in that time, 8374 community pharmacies submitted evidence to the UKHSA portal from 213,105 antibiotic prescriptions assessed with the TARGET Antibiotic Checklist.

4. Secondary Care—Reducing Avoidable Antibiotic Prescribing in NHS Trust Providers of Acute Care

4.1. The NHS Standard Contract

The planned NHS Standard Contract from 2020 to 2021 was suspended in March 2020 in response to the COVID-19 pandemic.

4.2. The NHS Standard Contract Metrics and Targets for 2021–2022

An antibiotic consumption reduction target was reinstated within the NHS Standard Contract from 2021 to 2022 for all NHS Trusts providing acute care, with a target to reduce antibiotic consumption by 2% from each Trust's 2018 calendar year baseline value [7].

4.3. Performance against the NHS Standard Contract for 2021–2022

An overview of changes to antibiotic consumption targets, scope, and performance against targets is provided in Table 2. From 2021 to 2022, 69/138 (50%) of participating NHS Trusts met the target to reduce total antibiotic consumption by 2% from 2018, and antibiotic consumption across all participating Trusts at financial year end was 4465 DDD per 1000 admissions.

Table 2. Summary of changes to NHS Standard Contract antibiotic consumption targets and achievement from 2019 to 2022.

Contract Year	Target Reduction in Antibiotic Consumption from Calendar Year 2018 Baseline	Number of Trusts that Met Requirement	Antibiotic Consumption Value at Year End
2019–2020	1% reduction in total DDD ¹ per 1000 admissions (cf. 2018)	43/145 (30%)	4612 DDD per 1000 admissions
2020–2021	Suspended due to COVID-19 pandemic	N/A	N/A
2021–2022	2% reduction in total DDD per 1000 admissions (cf. 2018)	69/138 (50%)	4465 DDD per 1000 admissions
2022–2023	4.5% reduction in DDD per 1000 admissions for antibiotics from the WHO “Watch” and “Reserve” categories (cf. 2018)	Current	Current

¹ World Health Organisation Defined Daily Doses.

5. Secondary Care—Commissioning for Quality and Innovation (CQUIN)

The Commissioning for Quality and Innovation (CQUIN) framework supports improvements in the quality of services and the creation of new, improved patterns of care. The CQUIN framework was suspended in March 2020 in response to the COVID-19 pandemic.

6. NHS England Plans from 2022 to 2023

6.1. FutureNHS AMR Programme Workspace

The NHS England AMR Programme Workspace was relaunched on the FutureNHS web-based platform in March 2022 to support local, regional, and national stakeholders to access guidance, resources (including frequently asked questions), and performance data for national improvement and assurance schemes. Access to FutureNHS requires registration but is open to NHS staff with an nhs.net e-mail address [8]. Visits to the workspace by registered members have risen steadily since launch, peaking at 305 per month in August 2022.

6.2. NHS Oversight Framework from 2022 to 2023

The NHS Oversight Framework was relaunched for 2022–23, replacing the NHS System Oversight Framework for 2021–22. The NHS Oversight Framework reflects the significant changes enabled by the Health and Care Act 2022, including the formal establishment of Integrated Care Boards and the merging of NHS Improvement (comprising of Monitor and the NHS Trust Development Authority) into NHS England. The AMR metrics and targets for antibiotic prescribing set out in Table 1 (above) have been retained for the NHS Oversight Framework 2022–23 [9].

6.3. NHS Standard Contract from 2022 to 2023

The scope of the antibiotic requirement in the NHS Standard Contract from 2022 to 2023 has been narrowed to antibiotics in the World Health Organisation (WHO) “Watch” and “Reserve” categories adapted for use in England [10,11]. This change brings the performance measure into alignment with the ambition set out in the UK AMR National Action Plan for 2019–2024 [3].

6.4. NHS Commissioning for Quality and Innovation (CQUIN) Framework from 2022 to 2023

The NHS England AMR Programme is responsible for two CQUIN indicators from 2022 to 2023—CCG2: Appropriate antibiotic prescribing for UTI in adults aged 16+; and CCG3: Recording of NEWS2 score, escalation time, and response time for unplanned critical care admissions [12].

Two additional CQUIN indicators from 2022 to 2023 are relevant to infection and antibiotic prescribing—CCG5: Treatment of community acquired pneumonia in line with the British Thoracic Society (BTS) care bundle; and CCG14: Assessment, diagnosis, and treatment of lower leg wounds.

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References

1. UK Health Security Agency. English Surveillance Programme for Antimicrobial Utilisation and Resistance (ESPAUR) Report 2021 to 2022. UK Health Security Agency: London, November 2022. Available online: <https://www.gov.uk/government/publications/english-surveillance-programme-antimicrobial-utilisation-and-resistance-espaur-report> (accessed on 27 March 2023).
2. NHS System Oversight Framework 2021/22. Available online: <https://www.england.nhs.uk/publication/system-oversight-framework-2021-22/> (accessed on 27 March 2023).
3. UK 5-Year Action Plan for Antimicrobial Resistance 2019 to 2024; Department of Health and Social Care: London, UK, 2019.
4. Lloyd, D.C.; Harris, C.M.; Roberts, D.J. Specific therapeutic group age-sex related prescribing units (STAR-PU): Weightings for analysing general practices' prescribing in England. *BMJ* **1995**, *311*, 991–994. [CrossRef] [PubMed]
5. Pharmacy Quality Scheme. Available online: <https://www.england.nhs.uk/primary-care/pharmacy/pharmacy-quality-payments-scheme/> (accessed on 27 March 2023).
6. TARGET Antibiotic Checklist. Version 2. Available online: https://elearning.rcgp.org.uk/pluginfile.php/172227/mod_book/chapter/447/antibiotic-checklist-v2.pdf (accessed on 27 March 2023).
7. 2021/22 NHS Standard Contract. Available online: <https://www.england.nhs.uk/nhs-standard-contract/previous-nhs-standard-contracts/21-22/> (accessed on 27 March 2023).
8. FutureNHS Website. Available online: <https://future.nhs.uk/> (accessed on 27 March 2023).
9. NHS Oversight Framework 2022/23. Available online: <https://www.england.nhs.uk/nhs-oversight-framework/> (accessed on 27 March 2023).
10. 2022/23 NHS Standard Contract. Available online: <https://www.england.nhs.uk/nhs-standard-contract/> (accessed on 27 March 2023).
11. Budd, E.; Cramp, E.; Sharland, M.; Hand, K.; Howard, P.; Wilson, P.; Wilcox, M.; Muller-Pebody, B.; Hopkins, S. Adaptation of the WHO Essential Medicines List for national antibiotic stewardship policy in England: Being AWaRe. *J. Antimicrob. Chemother.* **2019**, *74*, 3384–3389. [CrossRef] [PubMed]
12. 2022/23 CQUIN. Available online: <https://www.england.nhs.uk/nhs-standard-contract/cquin/2022-23-cquin/> (accessed on 27 March 2023).

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