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Title: AMR & HCAI IMPROVEMENT GOALS FOR 2021-23

Date of Expiry / Review: 31st March 2023

To Note: This WHC is being extended to 31st March 2023 and will be revised at that time.

For Action by:

Action required by: 1st October 2021

<p>Health Boards/Trusts: Chief Executives Medical Directors Nurse Executive Directors Infection Control Doctors & Nurses Directors of Public Health Hospital Chief Pharmacists Dental Officers PHW: HCAI & AMR Programme Leads CCDCs Health Protection Teams NWSSP: For distribution to GP practices, dental practices and community pharmacists.</p>	<p>For information; Welsh Government: DG/Chief Executive NHS Wales Deputy Chief Exec NHS Wales Professional & Policy Leads DHSS Operations Team DHSS Comms Team DHSS Digital Team NHS Wales: Chairs NHS Direct Wales</p>
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Enclosure(s): (State if there are any or None)

Dear Colleagues,

AMR & HCAI IMPROVEMENT GOALS FOR 2021-23

Foreword

The COVID-19 pandemic has caused widespread disruption to our health and care services. The NHS workforce has been severely challenged and has shown immense resilience and determination in these extraordinary circumstances. As we move into autumn and winter, services will need to be prepared to manage the emerging threats of influenza and respiratory syncytial virus, in addition to COVID-19.

Infection Prevention and Control (IP&C) measures have never been so important. The pandemic has demonstrated the need for adequate resources to support IP&C in both hospital and community settings. Implementation of key guidance (listed nearer the end of this document) will continue to be vital in mitigating the risk of transmission of harmful micro-organisms to both patients and staff. Reducing healthcare associated infections will reduce the need for using our precious antimicrobials and will preserve their effectiveness.

Monitoring of antimicrobial usage, levels of resistance and healthcare associated infections has continued throughout the pandemic although disruption to healthcare services has meant recent data is less comparable to pre-pandemic years. Rising antimicrobial resistance rates, for example, *Klebsiella sp.* blood stream infections, continues to be a cause for concern. We must use the lessons learned from the pandemic to strengthen our focus on improving the quality of our health and care services.

Yours sincerely,

Professor Chris Jones
Deputy Chief Medical Officer
Medical Director NHS Wales

Sue Tranka
Chief Nursing Officer
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Andrew Evans
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Deputy Chief Dental Officer

Annex 1

AMR & HCAI IMPROVEMENT GOALS FOR 2021-23

Wales remains committed to achieving the goals of the [UK AMR Strategy](#) and the 5-year ambitions outlined in the [UK National Action Plan on Antimicrobial Resistance \(AMR\) Strategy 2019-24](#) to combat antimicrobial resistance, through lowering the burden of infections, improving treatments and optimising our use of antimicrobials in humans..

National Action Plan ambitions are shown in highlighted boxes as applicable to each improvement goal.

1. OPTIMISING THE USE OF ANTIMICROBIALS

NATIONAL ACTION PLAN AMBITION:

Reduce the UK antimicrobial use in humans by 15% by 2024:

- A 25% reduction in antimicrobial usage in the community from the 2013 baseline
- A 10% reduction in use of “reserve” and “watch” antibiotics in hospitals from the 2017 baseline.

1.1 Primary Care:

Improvement Goal 1: To achieve a minimum 25% reduction in antimicrobial usage in the community from the 2013/14 baseline.

This WHC builds on the previous WHC 2019/019 issued in July 2019. Public Health Wales will continue to monitor antimicrobial usage in primary care and feedback information to Health Boards by reports and via the Antimicrobial Data Library for Wales, the [Antimicrobial Eye](#). The most recent analysis of data presented in the PHW report “Antimicrobial Usage in Primary Care in Wales 2016/17-2020/21” shows that currently all seven Health Boards in Wales have met the 25% reduction target for antimicrobial usage:

- Aneurin Bevan UHB 33.8% reduction
- Betsi Cadwaladr UHB 38.6% reduction
- Cardiff & Vale UHB 36.1% reduction
- Cwm Taf Morgannwg UHB 25.4% reduction
- Hywel Dda UHB 35.9% reduction
- Powys THB 33.2% reduction
- Swansea Bay UHB 33.4% reduction

It is important when interpreting the 2020/21 data to consider the changes in antimicrobial prescribing in the context of the COVID-19 pandemic, which has disrupted healthcare service delivery and potentially antimicrobial prescribing practices considerably. The aim

of this improvement goal is to encourage continued attention to antimicrobial stewardship and good prescribing practices as we recover from the COVID-19 pandemic. To sustain and further improve on the antimicrobial usage reductions already seen in primary care.

The [All Wales Medicine Strategy Group National Prescribing Indicators for 2020/21](#) may be used to underpin further improvements in antimicrobial prescribing.

Within the NPIs the Antimicrobial Stewardship priority area for primary care can be found here:

[Priority Areas - Stewardship | CPD for General Practitioners \(heiw.wales\)](#)

Improvement Goal 2: Prescribers should document the indication and appropriate read code for all antimicrobial prescriptions.

Why? A culture of learning and improvement should be at the heart of everything the NHS does. Using read codes enables a timely and accurate review of prescribing practices, and offers a measure of the quality of antimicrobial prescribing in addition to antimicrobial usage.

How? Prescribers within primary care should document the appropriate indication and read code for all antimicrobial prescriptions. The purpose of making this information available is to develop a culture of learning and improvement within primary care to benefit service users.

Improvement Goal 3: Primary care clusters should ensure urgent dental cases should be seen by dental services rather than General Medical Services.

Why? The principles of prudent healthcare should be adopted across the NHS to ensure the right person receives the right treatment at the right time. This will result in better outcomes for patients, improve the efficiency of our healthcare systems and relieve workload generated from inappropriate choices.

How? Providers understand the different dental services available and how to refer. Service users should be appropriately signposted to healthcare services in a timely fashion according to their needs. Accurate and consistent messaging between healthcare systems will promote cooperative working across the healthcare system and ensure patients access the appropriate services for their specific needs. Documentation of indications and read codes for prescriptions by General Practitioners can be used to assess the nature and appropriateness of consultations which concern dental cases.

1.2 Hospital Care

Improvement Goal 4 : Increase to or maintain the proportion of antibiotic usage within the WHO Access category to $\geq 55\%$ of total antibiotic consumption (as DDD). Public Health Wales' HARP team will continue to report on the proportions of "Reserve" and "Watch" antibiotic in use within Health Boards to provide the information that underpins the overarching UK AMR strategy ambition to reduce reserve and watch category antimicrobial usage.

Why? The biggest driver for AMR is overuse and misuse of antimicrobials. In addition to monitoring total volume of antimicrobials used, it is important that prescribers select the correct *type* of antimicrobial. The World Health Organisation has categorised antibacterials according to 'Access', 'Watch' and 'Reserve' defined within the [WHO AWaRe classification](#). Last-line antibiotics contained within the Watch and Reserve categories are more prone to drive resistance and are more often associated with side effects or toxicity. Efforts should be made to ensure they are only used when necessary.

How? Prescribers should comply with national and local antimicrobial formularies and prescribing guidance. Microbiology teams are employed within each health board to provide advice on antimicrobial choice if required, this should assist with managing the use of "watch" and "reserve" antimicrobials. Public Health Wales will publish annual end of year reports to inform Health Boards and Trusts of their WHO "access" category usage.

Improvement Goal 5: All Health Boards and Velindre NHS Trust will implement the principles of 'Start Smart then Focus'.

Why? The Start Smart then Focus (SSTF) prescribing toolkit helps promote good prescribing practices by embracing those recommendations made within national antimicrobial stewardship guidelines. It ensures regular review of antimicrobials, encourages changing the antimicrobial prescription to narrow-spectrum alternatives where appropriate and ensures prescriptions are not continued for any longer than necessary. Overall, the toolkit helps to optimise antimicrobial effectiveness for treating infection whilst mitigating the risk of resistance occurring.

How? Public Health Wales will assist health boards with the implementation of this toolkit and provide an audit tool to assess its implementation. The audit tool will be implemented this year, and targets associated with compliance will be introduced in 2022-23. The principles of SSTF will be supported by roll out of the Antibiotic Review Kit (ARK) chart and methodology.

2. LOWERING THE BURDEN OF INFECTION

NATIONAL ACTION PLAN AMBITION:

- Reduce the incidence of a specified set of drug resistant infections in humans in the UK by 10% by 2025
- Halve the number of healthcare associated Gram negative blood stream infections by 2024

2.1 Reducing the burden of Gram Negative Blood Stream Infections

Improvement Goal 6: Reduce the annual incidence of *E. coli* bacteraemia to below 67 cases per 100,000.

Improvement Goal 7: Reduce the annual incidence of *P. aeruginosa* and *Klebsiella* spp. bacteraemia by 10% against 2017-18 figures. If target achieved in 2019-20 strive for a further 10% reduction in case numbers.

Why? In the UK, a rise of gram-negative infections has been identified as a major driver of antimicrobial resistance. The infection burden associated with gram-negative bacteria is significant and the increase in resistance rates of gram-negative organisms is a major cause for concern. There has been distortion of the blood stream infection surveillance data due to the healthcare service delivery changes during 2020/21, therefore the improvement goals have not been changed from the last WHC. The recommendation to services now is to re-engage with the work to reduce Gram negative BSI.

How?

Urinary tract infections (UTI) are a major source of gram-negative blood stream infections. The Public Health Wales Healthcare Associated Infection & Antimicrobial Resistance Programme (HARP) have published guidance to help healthcare professionals with the prevention, diagnosis and management of UTI: UTI resources and tools, [Urinary Tract Infection \(UTI\) resources and tools - Public Health Wales \(NHS.Wales\)](#)

2.2 Reducing the Burden of other healthcare associated infections

2.2.1 Reduce the incidence of *Clostridioides difficile* infection

Improvement Goal 8: Reduce the annual incidence of *Clostridioides difficile* disease to 25 cases per 100,000 or below. Health boards that have achieved their 2019-20 reduction expectations should reduce their 2019-20 rate by a further 10% in 2021-22 and 2022-23.

Why? *Clostridioides difficile* disease is a serious infection associated with 10% mortality as reported by O'Neill (2016). This infection is rapidly spread within healthcare settings and management is of significant cost to the healthcare economy.

How? As for all healthcare associated infections, effective implementation of IPC precautions will limit its spread. A root cause analysis for this infection should be undertaken in all healthcare settings as an opportunity to learn and reflect on the impact of prescribing practices including review of antibiotic prescriptions and gastric acid suppressing medications.

NICE guidance concerning the antimicrobial prescribing for *Clostridioides difficile* infection has changed with oral vancomycin replacing metronidazole as first-line therapy. Fidaxomylin is advised if first-line therapy proves ineffective or recurrence of infection occurs within 12 weeks of symptom resolution. The NICE guidance on the management of *Clostridioides difficile* disease is available [here](#).

2.2.2 Reduce incidence of *Staphylococcus aureus* blood stream infections:

Improvement Goal 9: Reduce the annual incidence of *Staphylococcus aureus* bacteraemia to 20 cases per 100,000 or below. With zero tolerance of preventable MRSA blood stream infections and continued drive to reduce cases.

Why? *Staphylococcus aureus* is often a harmless skin commensal organism but has the potential to become an opportunistic pathogen. Mortality rates associated with *Staphylococcus aureus* bacteraemias can exceed 80% if untreated (Herchline, 2019). *Staphylococcus aureus* bacteraemia is a particular concern within healthcare settings which care for people who are immunocompromised or have recently undergone surgery. The risk is highest for those patients in intensive care facilities and those with medical implants including intravenous catheters.

How? Preventative measures aimed at reducing contamination of the blood stream with *Staphylococcus aureus* and other organisms include:

- Aseptic Non-Touch Technique (ANTT),
- Improving Medical Device management including central/peripheral venous catheter care
- Use of invasive medical device care bundles.
- Effective wound management and oral care

Guidance, policy and quality assurance

Welsh Government and Public Health Wales remain committed to ensuring the most up-to-date and robust guidance and policy is available. This aims to support health boards in achieving the targets and lowering their infection burden.

Infection prevention is better than treatment. Measures taken to reduce healthcare-associated infection will also help reduce rates of antimicrobial resistance. Some of the key measures taken to mitigate the transmission of COVID-19 to our patients and staff can also serve to limit the spread of antimicrobial resistant organisms within the healthcare environment.

Health boards should ensure IP&C measures and patient pathways of the COVID pandemic IP&C response are in place with plans for outbreak management and preparedness for Autumn and Winter 2021-23.

Key guidance documents

The following list contains some key guidance documents which should be implemented to reduce antimicrobial resistance and the risk of acquiring healthcare-associated infections including COVID-19.

Healthcare settings should also ensure they have appropriate assurance mechanisms in place to demonstrate implementation.

- UK IP&C Guidance for seasonal respiratory infections in Health and Care settings (including SARS-CoV-2) for winter 2021-2022
[infection prevention and control \(IPC\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/guidance/infection-prevention-and-control-ipc)
- Standard and Transmission Based Precautions IP&C protocols available at: [National Infection Prevention & Control Manual \(NIPCM\) for Wales](#)
- [The Communicable Disease Outbreak Plan for Wales \('The Wales Outbreak Plan'\)](#)
- [All Wales Infection Prevention and Control Training, Learning and Development Framework for health, social care, early years and childcare](#)
- [Key Standards for Environmental Cleanliness](#)
- Other clinical practice guidance:
 - [ANTT - Public Health Wales \(nhs.wales\)](#)
 - [Urinary Tract Infection \(UTI\) resources and tools - Public Health Wales \(nhs.wales\)](#)
- Surveillance reports, guidance and information on healthcare associated infections and antimicrobial resistance can be found on the HARP team webpages:
- [HARP - Public Health Wales \(nhs.wales\)](#)

Further work: HCAI and Antimicrobial Usage and Resistance Surveillance developments

Monitoring of drug-resistance organisms, burden of infection and use of antimicrobials is essential to ensure we progress with the fight against AMR. The sophisticated clinical

surveillance software, ICNET, is already established in Welsh health boards but there are plans to further develop surveillance modules.

During 2021/23 and as recovery from the COVID pandemic allows, the *Healthcare Associated Infection and Antimicrobial Resistance and Prescribing Programme* (HARP) will continue to develop the following surveillance programmes through the Baxter ICNET platform:

- Carbapenemase Producing Organism Surveillance (MDRO)
- Surgical Site Infection Surveillance
- Outbreak module surveillance
- Reporting of Blood Stream Infection as healthcare associated vs community onset