UK Health Security Agency

The national point prevalence survey of healthcare-associated infections and antimicrobial use in England 2023

Data collection forms

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Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use
Ward data

Hospital code: _____ **Ward name/unit ID[1]:** _____ **Survey date[2]:** ____/____/_____

Ward specialty[3] ☐ PED ☐ NEO ☐ ICU ☐ MED ☐ SUR ☐ G/O ☐ GER ☐ PSY ☐ YMH ☐ AMH ☐ OMH ☐ RHB ☐ LTC ☐ OTH ☐ MIX

For 2022/2023 financial year (or most recent FY data)
This should be requested from hospital analysts and procurement team and be available before web data entry commences

	Number	Year
Number of patient days in ward*		____/____
Alcohol hand rub (AHR) consumption		____/____
Number of hand hygiene opportunities		____/____

* Provide data for same year as AHR consumption

Data to be reported at time of survey	Number
Number of eligible[4] patients on ward	
Number of beds in ward	
Number of beds in unconventional settings (‘corridor beds’, ‘cupboard beds’)	
Number of beds with AHR dispenser at point of care	
Number of HCWs[5] on ward at time of PPS	
Number of HCWs on ward carrying AHR dispensers	
Number of rooms in ward	
Number of single rooms in ward	
Number of beds occupied at 00:01 on the day of PPS	

Please provide for all eligible[4] patients

Consultant/patient specialty (see codebook)	Number

Is there a hospital policy for review of the appropriateness of an antimicrobial within 72 hours from the initial order (post-prescription review) by an AMS team (i.e., separate from the primary clinical team) in this ward?

☐ Yes ☐ No ☐ Unknown

Comments/observations:

[1] Unique identifier for each unit (abbreviated ward name) within a hospital; this should remain identical between PPS years; [2] Patients on the same ward should be included on a single day; [3] Main ward specialty: >=80% of patients belong to this specialty, otherwise choose mixed (see codebook); [4] Patients admitted to the ward before or at 8:00 AM and not discharged from the ward at time of survey; [5] HCWs = Healthcare workers

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Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use
Ward handover form

Hospital code: _____ Ward name/unit ID[2]: _____ Survey date: ____/____/_____

Initials	NHS no.	Hosp. no.	DoB	Adm. date	Specialty[3]	Surgery[4]	McCabe score (Non/Ult/ Rap/ Unk)	CVC Y/N/U	PVC Y/N/U	Urinary catheter Y/N/U	Intubated Y/N/U	Amx[5] Y/N	HAI[6] Y/N

[1] Patients admitted to the ward before or at 8:00 AM and not discharged from the ward at time of survey
[2] Unique identifier for each unit (abbreviated ward name) within a hospital
[3] See codebook for patient specialty (the specialty of consultant looking after the patient)
[4] Surgery since admission (document most recent NHSN surgery)
[5] At the time of the survey, except for surgical prophylaxis administered with 24h before 8:00 AM on the day of the survey; if yes, fill antimicrobial use data; if patient receives >5 antimicrobials, add a new form
[6] [infection with onset ≥ Day 3, OR SSI criteria met (surgery in previous 30d/90d), OR discharged from acute care hospital <48h ago, OR CDI and discharged from acute care hospital < 28 days ago OR onset < Day 3 after invasive device/procedure on D1 or D2] **AND** [HAI case criteria met on survey day OR patient is receiving (any) treatment for HAI AND case criteria are met between D1 of treatment and survey day; if patient has >3 HAI, add a new form

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Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use
Patient data, patient details

Collect for all eligible patients

NHS number: _____

Hospital number: _____

Date of birth: ___/___/_____ (dd/mm/yyyy) **Sex:** M / F / U

Ethnicity: _____ **Postcode:**_____

Date of hospital admission: ___ / ___ / _____ (dd / mm / yyyy)

Consultant/Patient Specialty[2]: _____

If neonate, birth weight: _____ grams

If neonate, is neonate admitted to hospital because the mother is receiving treatment? ☐ **No** ☐ **Yes** ☐ **Unknown**

Surgery since admission (most recent NHSN surgery)?

☐ No surgery ☐ Minimal invasive/non-NHSN surgery

☐ NHSN surgery -> specify (optional)[2]: _____ ☐ Unknown

McCabe score:

☐ Non-fatal disease ☐ Ultimately fatal disease

☐ Rapidly fatal disease ☐ Unknown

Is the patient vaccinated against COVID-19?

☐ No ☐ 1-2 doses ☐ 3 doses ☐ 4 or more doses ☐ Unknown

Presence of any of the following (at time of survey):

Central vascular catheter:	☐ No	☐ Yes	☐ Unknown
Peripheral venous catheter:	☐ No	☐ Yes	☐ Unknown
Urinary catheter:	☐ No	☐ Yes	☐ Unknown
Intubation:	☐ No	☐ Yes	☐ Unknown

Does the patient have allergies to any antimicrobial?

☐ Present ☐ Nil known ☐ Not documented

Is the patient receiving any antimicrobial(s)[3]:

☐ No ☐ Yes ⟶ if "Yes", complete antimicrobial usage data **(over page)**

Does the patient have an active HAI[4]?:

☐ No ☐ Yes ⟶ if "Yes", complete HAI data form **(over page)**

(if yes, fill HAI data; if patient has > 3 HAIs, add new form)

Hospital code: _____

Ward name/unit ID[1]: _____

Survey date: ____/____/_____(dd/mm/yyyy)

(1) Unique identifier for each unit (abbreviated ward name) within a hospital;
(2) See codebook;
(3) At the time of the survey, except for surgical prophylaxis administered within 24h before 8:00 AM on the day of the survey or if patient has an active HAI; if yes, fill antimicrobial use data; if patient receives >4 antimicrobials, add a new form;

(4) Active HAI definition
Meets one or more of these criteria: Infection with onset ≥ Day 3 or later (day of admission = Day 1), OR SSI criteria met (surgery in previous 30d/90d), OR discharged/transferred from HCF <48h ago, OR CDI and discharged from HCF < 28 days ago OR onset < Day 3 after invasive device/procedure on D1 or D2 OR COVID-19 on day 1 or day 2 and (re-)admission within 48 hours after stay in HCF of >7 days OR onset of symptoms on day 1 or day 2 in a newborn (Day of birth = Day 1)
AND
Meets one or more of these criteria: [HAI case criteria met on survey day OR patient is receiving (any) treatment for HAI AND case criteria are met between D1 of treatment and survey day];

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Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use
Antimicrobial usage data[1]

Hospital code: _____ **Ward name/unit ID[2]:** _____ **Survey date:** ____/____/_____

NHS number: _____ **Hospital number:**_____ **Date of birth:** ____/____/_____ **Gender:** _____

[1] See next page for response options for these questions
[2] Unique identifier for each unit (abbreviated ward name) within a hospital

Antimicrobial (AM) (generic name)	**Route**	**Number of doses / day**	**Indication** (CI, HI, LI, SP1, SP2, SP3, MP, O, UI)	**Diagnosis (site)** (only for CI,HI,LI)	**Reason for AM in notes** (Y/N)	**Date this AM started (dd/mm/yyyy)**	**Antimicrobial Review? (within 72h after start)**	**AM Changed? (+ reason)**
						/ /		
						/ /		
						/ /		
						/ /		
						/ /		

Optional (strongly recommended in acute care settings)

Number missed doses	**Reason missed doses**	**Course length or stop date documented?** (Y/N)	**Guidance compliance** (1-6)	**Surgical prophylaxis for more than 24 hours**(Y/N/NA)	**Allergy mismatch** (Y/N/ND/UNK)	**Microbiology mismatch** (Y/N/NS/P/S)	**Indication does not require ANY antimicrobials** (Y/N/UNK)	**Incorrect route (Y/N/UNK)**	**Incorrect dose/frequency**	**Incorrect duration**	**Spectrum too broad** (Y/N/UNK)	**Spectrum too narrow** (Y/N/UNK)	**If AM restricted, approval given** (Y/N/UNK)	**Appropriateness** (1-5)

Optional notes

Were appropriate microbiology samples collected?
☐ Yes ☐ Partially* ☐ Not applicable ☐ No ☐ Not assessable
Record the specimen type, organism, and susceptibilities if relevant

*If more than one indication or microbiological sample is required

Clinical notes or comments
☐ Renal replacement therapy given with previous 24 hours (e.g. dialysis)

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Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use
Antimicrobial usage data
RESPONSES

Route: P=parenteral, O=oral, R=rectal, I=inhalation**;**
Number of doses / day: OD=once a day, BD=twice a day, TDS=3 times a day, QDS=4 times a day, 5 per day, 6 per day, 18hrly, QOD=alternate day; twice per week; three times/week; weekly; continuous infusion
Indication: treatment intention for community (CI), long-term care (LI) or acute hospital (HI) infection; surgical prophylaxis: SP1: single dose, SP2: one day, SP3: >1 day; MP: medical prophylaxis; O: other; UI: Unknown indication/reason (verified during PPS), UNK: Unknown/missing, information on indication was not verified during PPS
Diagnosis: see site list, only for CI-LI-HI; Otherwise code as not applicable (NA).
Reason in notes: Y/N;
Date this AM started (dd/mm/yyyy): Start date of the current antimicrobial. If the patient received the antimicrobial on admission, record the date of admission.
Antimicrobial Review (within 72 hours after start of each antibiotic; not from the start of the indication)**:** Y=Yes, N=No, UNK =Unknown; NA=Not applicable (start less than 72h ago);
AM Changed? (+ reason): Was the antimicrobial (or the route of administration) changed for this indication, and if so, what was the reason? N=no change, E=escalation, D=De-escalation, S=switch IV to oral, A=adverse effects, O=OPAT/COpAT, OU=changed, other/unknown reason, U=unknown;
Number missed doses: From start date of current antibiotic treatment until the date of the survey. If no doses missed, report as 0. If unknown, leave field empty.
Reason missed doses: S=due to stock out, P=patient could not purchase, D=patient declined/refused, O=other reason, M=multiple reasons, UNK=unknown.
Course length or stop date documented? Y=Yes, N=No;
Guidance compliance: Was the antimicrobial prescription compliant with guidelines? 1=Compliant with National Guidelines, 2=Compliant with locally endorsed guidelines (select 1=National guidelines if local guidelines are the same), 3=Non-compliant with guidelines, 4=Directed therapy, 5=No guidelines available, 6=Not assessable (see accompanying criteria);
Surgical prophylaxis for more than 24 hours: Y=Yes, N=No, NA=Not applicable (e.g. surgical prophylaxis not administered)
Allergy mismatch: Was there a mismatch between the allergy information for the patient and the prescribed antimicrobial agent? Y=Yes, N=No, ND=Not documented, UNK=unknown;
Microbiology mismatch: Is there a mismatch in relation to susceptibility testing. Y=Yes, N=No, NS=specimen not sent, P=result pending, S=susceptibility testing not performed;
Indication does not require <u>ANY</u> antimicrobials: Y=Yes, N=No, UNK=Unknown;
Incorrect route: Y=Yes, N=No, UNK=Unknown;
Incorrect dose/frequency: N=No, dose and frequency were correct; H=Yes, dose or frequency too high, L=Yes, dose or frequency too low;
Incorrect duration: N=No, duration correct, TL= Yes, duration too long, TS= Yes, duration too short;
Spectrum too broad / Spectrum too narrow: Y=Yes, N=No, UNK=Unknown;
If AM restricted, approval given: if local policy restricts a certain antimicrobial for specialist approval or pre-authorization. Y=Yes, N=No, UNK=Unknown;
Appropriateness: 1=Optimal. 2=Adequate, 3=Suboptimal, 4=Inadequate, 5=Not assessable (see accompanying guidance)

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Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use
Compliance with guidelines assessment criteria (adapted from Australian National Antimicrobial Prescribing Survey[1])

Compliance with guidelines (only choose **one** of the following five criteria)

Compliant with National Guidelines[2]	• The prescription complies with the current National Guidelines[2], including:
	  ○ route, does, frequency
	  AND
	  ○ takes into account acceptable alterations due to age, weight, renal function, allergies, other prescribed medications etc.

Compliant with locally endorsed guidelines[3]	• The prescription complies with an officially endorsed local guideline, including:
	  ○ route, does, frequency
	  AND
	  ○ takes into account acceptable alterations due to age, weight, renal function, allergies, other prescribed medications etc.
	• This does not include individual, departmental or historical guidelines that do not have executive or drug and therapeutic committee approval
	• If the local guidelines are based exactly on the National Guidelines[2], then choose the 'National Guidelines' in preference to 'Local Guidelines'

Non-compliant with guidelines	• There is non-compliance with both National Guidelines[2] and local guidelines. **UNLESS** the prescription takes into account acceptable alterations due to age, weight, renal function, allergies, other prescribed medications etc.

Directed therapy	• The prescription has changed from empiric to directed therapy with microbiology culture or susceptibility results available
No guidelines available	• There are no guidelines available for the documented or presumed indication
Not assessable	• The medical records are not comprehensive enough to determine a documented or presumed indication **OR** • It is difficult to assess if there is compliance

[1] Royal Melbourne Hospital and the National Centre for Antimicrobial Stewardship. Antimicrobial prescribing practice in Australian hospitals. Results of the 2020 Hospital National Antimicrobial Prescribing Survey Canberra: Department of Health and Aged Care; 2023. https://www.ncas-australia.org/ncas-publications date accessed: 02/08/2023

[2] National Institute for Health and Care Excellence guidelines on antimicrobial stewardship (including prescribing)

[3] Local guidelines must be authorised and readily available on wards or on the hospital intranet. They cannot be a web link to international guidelines or other non-approved sites. Exceptions include paediatric and neonatal guidelines from an English children's hospital and links to other guidelines within a hospital's network

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Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use: Appropriateness definitions (adapted from Australian National Antimicrobial Prescribing Survey[1])

			If endorsed guidelines are present	If endorsed guidelines are absent
Appropriate	**1**	**Optimal[2]**	Antimicrobial prescription follows either the National Guidelines[3] or endorsed local guidelines **optimally,** including antimicrobial choice, dosage, route and duration[4]	The antimicrobial prescription has been reviewed and endorsed by an infectious diseases clinician or clinical microbiologist OR The prescribed antimicrobial will cover the likely causative or cultured pathogens **and** there is not a narrower spectrum or more appropriate antimicrobial choice, dosage, route or duration[4] available
	2	**Adequate**	Antimicrobial prescription does not optimally follow the National Guidelines[3] or endorsed local guidelines**,** including antimicrobial choice, dosage, route and duration[4], however, is a **reasonable** alternative choice for the likely causative or cultured pathogens **OR** For surgical prophylaxis, as above **and** duration[4] is less than 24 hours	Antimicrobial prescription including antimicrobial choice, dosage, route and duration[4] is not the most optimal, however, is a **reasonable** alternative choice for the likely causative or cultured pathogens **OR** For surgical prophylaxis, as above **and** duration[4] is less than 24 hours
Inappropriate	**3**	**Suboptimal**	There may be a mild or non-life-threatening allergy mismatch **OR** Antimicrobial prescription including antimicrobial choice, dosage, route and duration[4], is an **unreasonable** choice for the likely causative or cultured pathogens, including: • spectrum excessively broad, unnecessary overlap in spectrum of activity, dosage excessively high or duration excessively long • Failure to appropriately de-escalate with microbiological results	
	4	**Inadequate**	Antimicrobial prescription including antimicrobial choice, dosage, route and duration[4], is **unlikely** to treat the likely causative or cultured pathogens **OR** The documented or presumed indication does not require **any** antimicrobial treatment **OR** There may be a severe or possibly life-threatening allergy mismatch, or the potential risk of toxicity due to drug interaction **OR** For surgical prophylaxis, the duration[4] is greater than 24 hours (except where local guidelines endorse this)	
	5	**Not assessable**	The indication is not documented and unable to be determined from the notes **OR** The notes are not comprehensive enough to assess appropriateness **OR** The patient is too complex, due to multiple co-morbidities, allergies or microbiology results, etc	

[1] Rodney James and others, The feasibility and generalizability of assessing the appropriateness of antimicrobial prescribing in hospitals: a review of the Australian National Antimicrobial Prescribing Survey, JAC-Antimicrobial Resistance, https://doi.org/10.1093/jacamr/dlac012

[2] Taking into account acceptable changes due to the patient's weight, allergy status, renal or hepatic function, or relevant drug interactions (if this information is available)

[3] National Institute for Health and Care Excellence guidelines on antimicrobial stewardship (including prescribing)

[4] Duration should only be assessed if the guidelines state a recommended duration and the antimicrobial has already been dispensed for longer than this, or there is a clear planned 'end date' documented

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Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use
HAI data

Hospital code: _____ **Ward name/unit ID[1]:** _____ **Survey date:** ____/____/_____

NHS number: _____ **Hospital number:**_____ **Date of birth:** ____/____/_____ **Gender:** _____

	HAI 1	HAI 2	HAI 3
Case definition code			
Invasive device[2]	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
Present on admission	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
Date of onset[3]	/ /	/ /	/ /
Origin of infection	☐ Current hospital ☐ Other acute care hospital ☐ LTCF ☐ Other community/mental health hospital ☐ Other/ unknown	☐ Current hospital ☐ Other acute care hospital ☐ LTCF ☐ Other community/mental health hospital ☐ Other/ unknown	☐ Current hospital ☐ Other acute care hospital ☐ LTCF ☐ Other community/mental health hospital ☐ Other/ unknown
HAI associated to current ward	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
Vasopressor treatment	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
If BSI: source[4]			

	HAI 1					HAI 2					HAI 3				
	Microbes code	Spec type[5]	AMR AB[6]	AMR SIR	PDR	Microbes code	Spec type[5]	AMR AB[6]	AMR SIR	PDR	Microbes code	Spec type[5]	AMR AB[6]	AMR SIR	PDR
Microorganism 1															
Microorganism 2															
Microorganism 3															

[1] Unique identifier for each unit (abbreviated ward name) within a hospital
[2] Relevant invasive device present (even intermittently) 48 hours before onset infection; intubation for pneumonia (PN); CVC/PVC for BSI; urinary catheter for UTI
[3] Only for infections not present/active on admission (dd/mm/yyyy)
[4] C-CVC (central venous catheter), C-PVC (peripheral venous catheter), S-PUL (pulmonary infection), S-UTI (urinary tract infection), S-DIG (digestive tract infection), S-SSI (surgical site infection), S-SST (skin/soft tissue infection), S-OTH (other), UO (none of the above, BSI of unknown origin, clinically asserted), UNK (unknown)
[5] Specimen type: B=Blood, CSF=Cerebrospinal fluid, U=urine, S=sputum, T=tissue, SB=swab, O=Other fluid, BAL = Bronchoalveolar Lavage
[6] AB: tested antibiotic(s): *S. aureus*: OXA (includes oxacillin or other marker for MRSA such as cefoxitin, cloxacillin, dicloxacillin, flucloxacillin or meticillin) and GLY; Enterococci: GLY; Enterobacterales: C3G and CAR; *P. aeruginosa* and *Acinetobacter* spp.: CAR; SIR: S=susceptible, standard, I=susceptible, increased exp, R=resistant, U=unknown; PDR: Pan-drug resistant: N=No, P=Possible, C=Confirmed, U=Unknown