

The national point prevalence survey of healthcareassociated infections and antimicrobial use in England 2023

Data collection forms



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

Hospital code: Wa	rd name/unit	יטו:	/Survey date <sup>2</sup> :/								
Ward specialty³ ☐ PED ☐ NEO ☐	ICU 🗆 MED	□ SUR □ G/	/O □ GER □ PSY □ YMH □ AMH □ OMH □ RHB □ LTC □ OTH □								
For 2022/2023 financial year (or most			Please provide for all eligible <sup>4</sup> patients								
be available before web data entry commenc			Consultant/patient specialty (see codebook) Number								
	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	on										
Data to be unusuated at time of common		1									
Data to be reported at time of survey	у	Number	<u> </u>								
Number of eligible <sup>4</sup> patients on ward											
Number of beds in ward											
Number of beds in unconventional settlebeds', 'cupboard beds')	tings ('corridor		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 (that is separate from the								
Number of beds with AHR dispenser a	t point of care		primary clinical team) in this ward?								
Number of HCWs <sup>5</sup> on ward at time of F	PPS		☐ Yes ☐ No ☐ Unknown								
Number of HCWs on ward carrying AF	IR dispensers		Comments/observations:								
Number of rooms in ward											
Number of single rooms in ward			<sup>1</sup> Unique identifier for each unit (abbreviated ward name) within a hospital; this should								
Number of beds occupied at 00:01 on	the day of PPS		remain identical between PPS years. <sup>2</sup> Patients on the same ward should be included a single day. <sup>3</sup> Main ward specialty: >=80% of patients belong to this specialty, otherw chass mixed (see codebook). <sup>4</sup> Patients admitted to the ward before or at 8 am and n								

discharged from the ward at time of survey. <sup>5</sup> HCWs = healthcare workers.



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

pital co	de:	Ward	d name/u	nit ID²:				Surve	ey date:	/	/	<del></del>	
Initials	NHS no.	Hosp. no.	DoB	Adm. date	Specialty <sup>3</sup>	Surgery <sup>4</sup>	McCabe score (Non/Ult/ Rap/ Unk)	CVC Y/N/U	PVC Y/N/U	Urinary catheter Y/N/U	Intubated Y/N/U	Amx <sup>5</sup> Y/N	HAI <sup>6</sup> Y/N

<sup>&</sup>lt;sup>1</sup> Patients admitted to the ward before or at 8am and not discharged from the ward at time of survey

<sup>&</sup>lt;sup>2</sup> Unique identifier for each unit (abbreviated ward name) within a hospital

<sup>&</sup>lt;sup>3</sup> See codebook for patient specialty (the specialty of consultant looking after the patient)

<sup>&</sup>lt;sup>4</sup> Surgery since admission (document most recent NHSN surgery)

<sup>&</sup>lt;sup>5</sup> At the time of the survey, except for surgical prophylaxis administered with 24 hours before 8am on the day of the survey; if yes, fill antimicrobial use data; if patient receives >5 antimicrobials, add a new form

<sup>&</sup>lt;sup>6</sup> [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]



### 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 <sup>2</sup> :												
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												
☐ Non-fatal disease ☐ Ultimately 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:												
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 HAI⁴?:  ☐ 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 ID1:	
Survey date://	(dd/mm/yyyy)
Unique identifier for each unit (abl	breviated ward name) within a

- (1)
- (2) See codebook
- (3) At the time of the survey, except for surgical prophylaxis administered within 24 hours before 8am 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]



## Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use Antimicrobial usage data<sup>1</sup>

Hospital code: _				_ <b>V</b>	/ard	name/unit	ID <sup>2</sup> : _								_	urve	ey date	e: _		/	_/_			
NHS number:	NHS number: Hospital number:					D	ate o	f birt	h: ַ			<u>/</u>	G	enc	ler:									
<ul> <li>See next page for response options for these questions</li> <li>Unique identifier for each unit (abbreviated ward name) within a hospital</li> </ul>									ſ	Optional (strongly recommended in acute care settings)														
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)		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)
						/ /																		
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#### 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 (for example dialysis)



#### 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 any 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)



# Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use Compliance with guidelines assessment criteria (adapted from Australian National Antimicrobial Prescribing Survey<sup>1</sup>)

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

Compliant with National Guidelines <sup>2</sup>	<ul> <li>The prescription complies with the current National Guidelines², including:         <ul> <li>route, does, frequency</li> <li>and</li> <li>takes into account acceptable alterations due to age, weight, renal function, allergies, other prescribed medications, and so on</li> </ul> </li> </ul>							
Compliant with locally endorsed guidelines <sup>3</sup>	<ul> <li>The prescription complies with an officially endorsed local guideline, including:         <ul> <li>route, does, frequency</li> <li>and</li> <li>takes into account acceptable alterations due to age, weight, renal function, allergies, other prescribed medications, and so on</li> </ul> </li> <li>This does not include individual, departmental or historical guidelines that do not have executive or drug and therapeutic committee approval</li> <li>If the local guidelines are based exactly on the National Guidelines<sup>2</sup>, then choose the 'National Guidelines' in preference to 'Local Guidelines'</li> </ul>							
Non-compliant with guidelines	There is non-compliance with both National Guidelines <sup>2</sup> and local guidelines     unless     the prescription takes into account acceptable alterations due to age, weight, renal function, allergies, other prescribed medications, and so on							
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	<ul> <li>The medical records are not comprehensive enough to determine a documented or presumed indication or</li> <li>it is difficult to assess if there is compliance</li> </ul>							

<sup>&</sup>lt;sup>1</sup> Royal Melbourne Hospital and the National Centre for Antimicrobial Stewardship. <u>Antimicrobial prescribing practice in Australian hospitals</u>. <u>Results of the 2020 Hospital National Antimicrobial Prescribing Survey Canberra: Department of Health and Aged Care; 2023</u>. Viewed on 2 August 2023

<sup>&</sup>lt;sup>2</sup> National Institute for Health and Care Excellence guidelines on antimicrobial stewardship (including prescribing)

<sup>&</sup>lt;sup>3</sup> 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



### Point Prevalence Survey 2023: healthcare-associated infections and antimicrobial use: Appropriateness definitions (adapted from Australian National Antimicrobial Prescribing Survey<sup>1</sup>)

			- · ·	_									
			lf endorsed guidelines are present		If endorsed guidelines are absent								
Appropriate	1	Optimal <sup>2</sup>	Antimicrobial prescription follows either the National Guidelines <sup>3</sup> or endorsed local guidelines optimally, including antimicrobial choice, dosage, route and duration <sup>4</sup>		The antimicrobial prescription has been reviewed and endorsed by a infectious diseases clinician or clinical microbiologist or the prescribed antimicrobial will cover the likely causative or culture pathogens <b>and</b> there is not a narrower spectrum or more appropriat antimicrobial choice, dosage, route or duration <sup>4</sup> available								
<b>Дрргор</b> па <b>с</b> е	2	Adequate	Antimicrobial prescription does not optimally follow the National Guidelines³ or endorsed local guidelines, including antimicrobial choice, dosage, route and duration⁴, however, is a reasonable alternative choice for the likely causative or cultured pathogens or for surgical prophylaxis, as above and duration⁴ is less than 24 hours		Antimicrobial prescription including antimicrobial choice, dosage, route and duration <sup>4</sup> 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 <sup>4</sup> is less than 24 hours								
			There may be a mild or non	lifo	e-threatening allergy mismatch								
	3	Suboptimal	antimicrobial prescription including antimicrobial choice, dosage, route pathoge	or and ns, in s	r d duration <sup>4</sup> , is an unreasonable choice for the likely causative or cultured including: spectrum of activity, dosage excessively high or duration excessively long								
Inappropriate	4	Inadequate	the documented or presumed indication there may be a severe or possibly life-threatening allergy r	nd duration <sup>4</sup> , is unlikely to treat the likely causative or cultured pathogens resond require any antimicrobial treatment rematch, or the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due to drug interaction results for the potential risk of toxicity due									
	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, and so on										

<sup>&</sup>lt;sup>1</sup> Rodney James and others. <u>The feasibility and generalizability of assessing the appropriateness of antimicrobial prescribing in hospitals: a review of the Australian National Antimicrobial Prescribing <u>Survey</u> JAC-Antimicrobial Resistance</u>

<sup>&</sup>lt;sup>2</sup> 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)

<sup>&</sup>lt;sup>3</sup> National Institute for Health and Care Excellence guidelines on antimicrobial stewardship (including prescribing)

<sup>&</sup>lt;sup>4</sup> 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



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

Hospital code: _			Ward	name/unit	ID1:	/Survey date:/												
NHS number:			Hosp	oital number	r:	Date of birth:/ Gender:												
			HAI	1				HAI 2			HAI 3							
Case definition code																		
Invasive device <sup>2</sup>	☐ Yes [	□ No □	Unknown			☐ Ye	s 🗆 No	□ Unknown			☐ Ye	s 🗆 No	□ Unknown					
Present on admission	nission					☐ Ye	s 🗆 No	□ Unknown			☐ Ye	s 🗆 No	□ Unknown					
Date of onset <sup>3</sup>	/	1					/ /				1 1							
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/menta health hospital ☐ Other/ unknown					
HAI associated to current ward	☐ Yes [	□ No □	Unknown			☐ Yes ☐ No ☐ Unknown						☐ Yes ☐ No ☐ Unknown						
Vasopressor treatment	☐ Yes I	□ No □	Unknown			☐ Yes ☐ No ☐ Unknown						☐ Yes ☐ No ☐ Unknown						
If BSI: source4																		
	es	'pe <sup>5</sup>		AMR		es	g a a AMR				es	'pe <sup>5</sup>	AM	AMR				
	Microbes	Spec type <sup>5</sup>	AB <sup>6</sup>	SIR	PDR	Microbes	Spec type <sup>5</sup>	AB <sup>6</sup>	SIR	PDR	Microbes	Spec type <sup>5</sup>	AB <sup>6</sup>	SIR	PDR			
Microorganism 1																		
Microorganism 2																		
Microorganism 3																		

<sup>&</sup>lt;sup>1</sup> Unique identifier for each unit (abbreviated ward name) within a hospital

<sup>&</sup>lt;sup>2</sup> Relevant invasive device present (even intermittently) 48 hours before onset infection; intubation for pneumonia (PN); CVC/PVC for BSI; urinary catheter for UTI

<sup>&</sup>lt;sup>3</sup> Only for infections not present/active on admission (dd/mm/yyyy)

<sup>&</sup>lt;sup>4</sup> 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-SSI (skin/soft tissue infection), S-OTH (other), UO (none of the above, BSI of unknown origin, clinically asserted), UNK (unknown)

<sup>&</sup>lt;sup>5</sup> Specimen type: B=Blood, CSF=Cerebrospinal fluid, U=urine, S=sputum, T=tissue, SB=swab, O=Other fluid, BAL = Bronchoalveolar Lavage

<sup>&</sup>lt;sup>6</sup> AB: tested antibiotic(s): *S. aureus*: OXA (includes oxacillin or other marker for MRSA such as cefoxitin, cloxacillin, 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