Ward Form (Mandatory : Fill in one form for each ward included in the PPS)

Include only inpatients "admitted before and present at 08:00 hours" on the day of the PPS!

Date of survey (dd/mm/year)	_____/_____/_____	**Person completing form** (Auditor code) :	
Hospital name :		**Ward Name :**	

Ward Type: Tick the most appropriate type of department/ward	**Adult wards**		**Paediatric wards**
	☐ **AMW** (General or mixed **Adult Medical Ward**) ☐ **HO-AMW** (Haematology-Oncology) ☐ **T-AMW** (Transplant (BMT/solid)) ☐ **P-AMW** (Pneumology) ☐ **CAR-AMW** (Cardiology) ☐ **NEU-AMW**(Neurology) ☐ **REN-AMW** (Nephrology) ☐ **ID-AMW** (Infectious Disease) ☐ **DB-AMW** (Dermatology-burn wards) ☐ **PSY-AMW** (Psychiatry) ☐ **REH-AMW** (Rehabilitation) ☐ **GER-AMW** (Geriatrics) ☐ **LTC-AMW** (Long-Term care) ☐ **OBG-AMW** (gynaecology-obstetrics) ☐ **IS-AMW** (Isolation ward, e.g. COVID patients)	☐ **ASW** (General or mixed **Adult Surgical Ward**) ☐ **DIG-ASW** (Digestive tract surgery) ☐ **ORT-ASW** (Orthopaedics-Trauma surg.) ☐ **URO-ASW** (Urological surg.) ☐ **CV-ASW** (Cardio-vascular surg.) ☐ **NEU-ASW** (Neurosurgery) ☐ **ONCO-ASW** (Oncology-cancer surg.) ☐ **PLAS-ASW** (Plastic, reconstructive surg.) ☐ **ENT-ASW** (Ear-nose-throat surg.) ☐ **AICU** (General or mixed **Adult Intensive Care Unit**) ☐ **MED-AICU** (Medical AICU) ☐ **SUR-AICU** (Surgical AICU) ☐ **CAR-AICU** (Cardiac AICU) ☐ **AHDU** (High Dependency Unit)	☐ **PMW** (Paediatric Medical Ward) ☐ **HO-PMW** (Haematology-Oncology) ☐ **T-PMW** (Transplant (BMT/Solid)) ☐ **PSW** (Paediatric Surgical Ward) ☐ **PICU** (Paediatric Intensive Care Unit) ☐ **ID-PMW** (Infectious Disease PMW) **Neonatal wards:** ☐ **NMW** (Neonatal Medical Ward) ☐ **NICU** (Neonatal Intensive Care Unit)
Mixed Ward	☐ **Yes** ☐ **No**		

Activity: Tick as appropriate. In case of mixed wards, tick all encountered activities/specialities	☐ **Medicine**	☐ **Surgery**	☐ **Intensive Care**
Total number of admitted inpatients (=all patients whether they receive an antimicrobial or not !) on the ward present at 8.00 am on day of PPS. For mixed departments, fill the total number of patients corresponding to each of the encountered activities.			
Total number of beds on the ward present at 8:00 am on day of PPS split up by activity. For mixed departments fill in the total number of beds corresponding to each of the encountered activities.			

The next section is to be filled in 'only' if you are participating in the Healthcare-Associated Infections (HAI) module

Total number of "admitted" inpatients with one of the following "inserted" invasive devices at 8:00 am on day of PPS				
	Indwelling Urinary Catheter (UC)			
	At least one peripheral vascular / intravenous catheter (PVC)			
	Central vascular catheter (CVC)			
	Non-invasive pos. & neg. mechanical ventilation (CPAP, BiPAP, CNEP, …)			
	Invasive respiratory endotracheal intubation (IRI)[1]			
	Inserted tubes and drains (T/D)[2]			

[1] Include tracheostomy

[2] Inserted tubes and drains: include patients with nephrostomy tubes, intra-abdominal tubes and drains, cerebrospinal fluid shunts etc. **Exclude** feeding tubes.

GLOBAL-PPS PATIENT Form (Mandatory: Fill in one form per patient with an active/ongoing antimicrobial at 8am on the day of the PPS)

Ward Name/code	Activity [1] (M, S, IC)	Patient Identifier [2]	Survey Number [3]	Patient Age [4]			Current Weight* In kg	*Neonate only* (optional)		Sex M, F, U
				Years ≥ 2 years	Months 1-23 month	Days <1 month		Gestational age*	Birth weight* (kg)	

Treatment based on biomarker data or WBC			0 Yes – 0 No			Culture(s) sent to the lab to document infection* (Tick if yes)		
If yes, which: CRP, PCT, other or WBC[5]		Type biological fluid sample (Blood/urine/ other)		Most relevant value close to start antimicrobial Value	Unit[6]	☐ Blood	☐ Cerebrospinal fluid	☐ BAL (protected resp. specimen)
						☐ Urine	☐ Wound (surgery/biopsy)	☐ Sputum/bronchial aspirate
						☐ Stool	☐ Other type of specimen	

Antimicrobial Name [7]		1.		2.		3.		4.		5.	
Start date of the antimicrobial* (*dd/mm/yyyy*)											
Single Unit Dose [8]	Unit (g, mg, IU, MU) [9]										
Doses/ day [10]	Route (P, O, R, I, IM)[11]										
Diagnosis [12] (see appendix II)											
Type of indication [13] (see appendix III)											
Reason in Notes (Yes or No) [14]											
Guideline Compliance (Y, N, NA, NI) [15]											
Is a stop/review date documented? (Yes/No)											
N missed doses*[16]	Reason* (S,P,D,O,M,U)[17]										

Treatment (E: Empirical; T: Targeted)[18]											
The following resistance data is to be filled in only if the treatment choice is based on microbiology data (Treatment=T) available on the day of the PPS											
Maximum 3 microorganisms (MO) to report Maximum 1 Resistance type by MO to report		MO	R type**	MO	R type**	MO	R type**	MO	R type**	MO	R type**
Insert codes (see Appendix IV, page 9)	MO 1										
	MO 2										
	MO 3										

Resistance type ** - choose between: **MRSA**[19]; **MRCoNS**[20]; **PNSP**[21]; **MLS**[22]; **VRE**[23]; **ESBL** (ESBL-producing Enterobacterales[24]); **3GCREB** (3rd generation cephalosporin resistant Enterobacterales); **CRE** (Carbapenem-resistant Enterobacterales[25]); **ESBL-NF** (ESBL-producing non fermenter Gram-negative bacilli[26]); **CR-NF** (Carbapenem-resistant non fermenter Gram-negative bacilli [27]); **other MDRO**[28]; **Azoles**[29]. Encode Microorganism also if resistance type is unknown.

Note: * *Current weight*, Gestational age (in number of weeks), *Birth weight*, *Start date of the antimicrobial* and *Cultures sent to the lab, missed doses* are **optional variables**.

[1] Activity: M=medicine (including Psychiatric cases, *etc.*), S=surgery (including orthopaedics, obstetrics and gynaecology, *etc.*), IC=intensive care

[2] Patient Identifier: A unique patient identifier that allows linkage to patient records at local level for more detailed audit. This unique identifier will not be included in the online database.

[3] Survey Number: A unique non-identifiable number given by WebPPS for each patient entered in the database. Leave blank but note down the number after the patient data has been recorded in the online database. The number is displayed once (and only) after the patient data has been recorded in the online database.

[4] Patient Age: If the patient is 2 years old or older, specify only the number of years, if between 1 and 23 months specify only the number of months, if less than 1 month specify the number of days.

[5] If treatment based on biomarker, specify which one: **CRP** (C-reactive protein), **PCT** (Procalcitonin), **Other** lab-based biomarker other than CRP, PCT; or **WBC** (white blood cell count).

[6] The unit for the biomarker CRP or PCT value expressed in mg/L, µg/L, ng/L, mg/dL, ng/dL, ng/mL, µg/mL, nmol/L. In thousand per microliter (µL) for WBC count (normal number of WBCs in the blood is 4,500 to 11,000 WBCs per microliter). For a conversion calculator see: http://unitslab.com/node/67 (CRP) and http://unitslab.com/node/103 (procalcitonin).

[7] Antimicrobial Name: Insert generic name.

[8] Single Unit Dose: Numeric value for dose per administration (in grams, milligrams, IU or MU).

[9] Unit: The unit for the dose (g, mg, IU or MU)

[10] Doses/day: If necessary provide fractions of doses: (e.g., every 16h = 1.5 doses per day, every 36h = 0.67 doses per day, every 48h = 0.5 doses per day)

[11] Route: Routes of administration are: Intravenous and intrathecal and intraperitoneal=P, Intramuscular=IM, Oral=O, Rectal=R, Inhalation=I. See also protocol page 18

[12] See diagnoses groups list (Appendix II)

[13] See Indication codes (Appendix III)

[14] Reason in Notes**:** A diagnosis / indication for treatment is recorded in the patient's documentation (treatment chart, notes, etc.) at the start of antibiotic course (Yes or No)

[15] Guideline Compliance: Refers to antibiotic choice (not route, dose, duration etc) in compliance with **local** guidelines (Y: Yes; N: No; NA: Not Assessable because of absence of local guidelines for the specific indication; NI: No Information because diagnosis/indication is unknown)

[16] N missed doses: Number of 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.

[17] Reason: Reason for missed doses: due to **stock** out (S), patient could not **purchase** (P), patient **declined**/refused (D), **other** reason (O), **multiple** reasons (M), **unknown** (U).

[18] Treatment: **Report "E"** 1) when the antibiotic is being used as per a local guideline, treatment by which experience has proved to be beneficial; 2) when a culture or microbiological examination is not done ; 3) when a microbiological examination is done, BUT not yet available on the day of the PPS; or the result was not assessable. **Report "T"** if based upon microbiological result; Report also "T" if the micro-organism yielded susceptible results.

[19] Methicillin-resistant *Staphylococcus aureus* (MRSA)

[20] Methicillin-resistant coagulase negative staphylococci (MRCoNS)

[21] Penicillin-non susceptible *Streptococcus pneumoniae* (PNSP)

[22] Macrolide-lincosamide-streptogramin resistance in Streptococcus isolates (MLS)

[23] Vancomycin-resistant enterococci (VRE)

[24] Bacteria, producing extended-spectrum beta-lactamases (ESBL)

[25] Carbapenem-resistant *Enterobacterales* (CRE) – enteric bacteria resistant to imipenem, meropenem or other carbapenems

[26] ESBL Non fermenters (ESBL-NF): *Pseudomonas aeruginosa, Acinetobacter baumannii, Burkholderia spp., Stenotrophomonas maltophilia* multidrug resistant

[27] Carbapenem-resistant Nonfermenters (CR-NF) – nonfermenters resistant to imipenem, meropenem or other carbapenems

[28] Multi-drug resistant (MDR) pathogens, others than the listed above

[29] Azoles: if the medicinal product chosen is intended to treat infections caused by azole-resistant fungi and yeasts (e.g. *Candida spp*., *Aspergillus spp*.)

GLOBAL-PPS PATIENT Form – additional variables for HAI at patient level

(Fill in one form per patient with an active/ongoing antimicrobial at 8am on the day of the PPS – more info on definitions in protocol)

Ward Name/code	Activity [1] (M, S, IC)	Patient Identifier [2]	Survey Number [3]	Patient Age [4]			*Current Weight**	*Neonates (optional)*		Sex M, F, U
				Years ≥ 2 years	Months 1-23 month	Days <1 month		*Gestational age**	*Birth weight**	

Date of admission in the hospital *(dd/mm/yyyy)* ***(optional)***				
Previous hospitalization < 3 months ***(optional)***	☐ Yes, ICU	☐ Yes, other	☐ No	☐ UNK

Surgical procedure during current admission in hospital	☐ Yes	☐ No	☐ UNK
Previous antibiotic course < 1 month ***(optional)***	☐ Yes	☐ No	☐ UNK

"Inserted" invasive device present at 8 am on the day of the PPS				Date 1st insertion/start ***(optional)***
Indwelling Urinary Catheter (UC)	☐ Yes	☐ No	☐ UNK	__/__/____
Peripheral Vascular / intravenous Catheter (PVC)	☐ Yes	☐ No	☐ UNK	__/__/____
Central Vascular Catheter (CVC)	☐ Yes	☐ No	☐ UNK	__/__/____
Non-invasive pos. & neg. mechanical ventilation (CPAP, BiPAP, CNEP, …)[i]	☐ Yes	☐ No	☐ UNK	__/__/____
Invasive respiratory endotracheal intubation (IRI)[ii]	☐ Yes	☐ No	☐ UNK	__/__/____
Inserted tubes and drains (T/D)[iii]	☐ Yes	☐ No	☐ UNK	__/__/____

McCabe score	
	☐ Non-fatal disease
	☐ Ultimately fatal disease
	☐ Rapidly fatal disease
	☐ UNK/Not available

Underlying morbidity ***(multiple choice, maximum 3 choices)***			
	☐ Diabetes mellitus, type 1 or 2	☐ Genetic disorder	☐ End-stage Liver Disease, cirrhosis
	☐ AIDS/HIV (only if last CD4 count <500/mm^3)	☐ Congenital heart diseases	☐ Trauma
	☐ Hematological or solid cancer/ Recent chemotherapy (<3months)	☐ Chronic lung diseases including cystic fibrosis, COPD, bronchiectasis, asthma	☐ Gastroenterological disease (inflammatory bowel disorders, Coeliac disease,…)
	☐ Stem cell or solid organ transplant	☐ Neutropenia	☐ Chronic neurological conditions[iv]
	☐ Chronic Renal Disease (all stages)	☐ High dose steroids[v]	☐ Other
	☐ Active tuberculosis	☐ Malnutrition[vi]	☐ None
		☐ Long COVID	☐ Unknown

[i] Do not include oxygen therapy such as Optiflow™ nasal high flow therapy, larynx mask, oxygen catheter.
[ii] Include tracheostomy
[iii] Inserted tubes and drains: include nephrostomy tubes, intra-abdominal tubes and drains and cerebrospinal fluid shunts. Exclude feeding tubes.
[iv] Chronic neurological conditions: include Alzheimer's disease, Parkinson's disease, dystonia, ALS (Lou Gehrig's disease), Huntington's disease, neuromuscular disease, multiple sclerosis and epilepsy etc.
[v] Corticotherapy ≥ 30 days or recent corticotherapy at high doses (> 5 mg/kg prednisolone > 5 days)
[vi] Malnutrition refers to dietary deficiency which lead to lack of vitamins, minerals and other essential substances. Score illnesses as kwashiorkor, scurvy, delayed growth, serious underweight, etc.

HOSPITAL PROFILE – "Optional data" to be collected at hospital level

Provide, if available, for each indicator the year of reference and the number "at hospital level".

	Year (yyyy)	**Number**
Hospital size : number (N) beds		
Number of admissions (or discharges)/year		
Number of patient days or occupied bed-days/year		
Number of consumption of alcohol-based hand rub in litres/year		
Number of "patients" with blood culture test/year		
Number of stool tests for *Clostridioides difficile* Infections/year		
Number of FTE* antimicrobial stewardship physicians		
Number of FTE antimicrobial stewardship pharmacists		
Number of FTE Infection prevention control (IPC) doctors		
Number of FTE Infection prevention control (IPC) nurses		

***FTE=Full-Time Equivalent units or equivalent employees working full-time on antimicrobial stewardship activities or IPC. E.g. if 3 employees work 20 hours, 30 hours and 10 hours/week=total 60 hours/week and assuming that a full-time employee works 40hours/week, the FTE calculation equals 60hours/40hours; or 1.5 FTE**

Indicate for each indicator at hospital level if available 'yes' or 'no'.

	Yes	**If yes: Year of introduction**	**No**
Presence of formally defined AMS* program	☐		☐
Presence of active AMS group (committee and operational team)	☐		☐
Presence of formally defined IPC* program	☐		☐
Presence of active IPC group (committee and operational team)	☐		☐
Presence of regular IPC (annual, quarterly) feedback to health care workers	☐		☐
Clinical Infectious Disease (ID) consultation available	☐		☐
Specialized AMS or ID training available for physicians/pharmacists	☐		☐
Presence of microbiology lab support on site	☐		☐
Availability of microbiology lab on weekends/holidays	☐		☐
Availability of periodic cumulative antimicrobial susceptibility report**	☐		☐
If yes, is susceptibility report distributed to prescribers?	☐		☐
Availability of standardized criteria for appropriate IV-PO switch	☐		☐
Software available for Infection Control and/or AMS	☐		☐
Presence of bundles or checklists to decrease CAUTI, VAP, CR-BSI, CDIF, SSI°	☐		☐

***AMS=Antimicrobial Stewardship; IPC=Infection Prevention and Control; ** local epidemiological report**
° CAUTI=Catheter Associated Urinary Tract Infection; VAP=Ventilator Associated Pneumonia; CR-BSI=Catheter-related Blood Stream Infection; CDIF= Clostridioides Difficile Infection; SSI=Surgical Site Infections.

Tick for each indicator if available at hospital level.

Availability of **written policy to document the antimicrobial prescription** in the medical record	☐ Yes, all wards	☐ Yes, selected wards	☐ Yes, in ICU	☐ No
Availability of **formal restriction procedure** (defined formulary, restrictive list) for certain antimicrobials	☐ Yes, all wards	☐ Yes, selected wards	☐ Yes, in ICU	☐ No
Presence formal review of antimicrobial **after 48 hours** (**post-prescription review**)	☐ Yes, all wards	☐ Yes, selected wards	☐ Yes, in ICU	☐ No
Presence of **antimicrobial ward rounds** (Review of antimicrobial orders for assigned patients)	☐ Yes, all wards	☐ Yes, selected wards	☐ Yes, in ICU	☐ No
Who can prescribe antibiotics in your hospital?	☐ Physician	☐ Pharmacist	☐ Nurse	☐ Other

Appendix I: Combination anti-infective agents

Combinations of an antibiotic and a beta-lactamase inhibitor:

- Do not report the dose of the beta-lactamase inhibitor

Ampicillin and beta-lactamase inhibitor: report only ampicillin dose (J01CR01)
Amoxicillin and beta-lactamase inhibitor: report only amoxicillin dose (J01CR02)
Ticarcillin and beta-lactamase inhibitor: report only ticarcillin dose (J01CR03)
Piperacillin and beta-lactamase inhibitor: report only piperacillin dose (J01CR05)
Imipenem and beta-lactamase inhibitor: report only imipenem dose (J01DH51)
Panipenem and betamipron: report only panipenem (J01DH55)

Example:
Amoxicillin and beta-lactamase inhibitor 1.2g IV → 1g (amoxicillin) + 200mg (clavulanic acid), **report only 1 g as unit dose**
Piperacillin and beta-lactamase inhibitor 4.5g IV → 4g (piperacillin) + 500mg (tazobactam), **report only 4 g as unit dose**

Other combinations of multiple antimicrobial substances:
J01EE01 Sulfamethoxazole and Trimethoprim: **report the total amount of sulfamethoxazole and trimethoprim**
Example:
Co-trimoxazole 960mg: (sulfamethoxazole. 800mg + trimethoprim 160mg), **report 960mg**

Further information on agents included for the Global-PPS is available in the antimicrobial list. Only antimicrobial substance name needs to be written down, NOT the ATC codes! (excel file - available on website under documents: Global-PPS_antimicrobial_list.xlsx) http://www.global-pps.com/

Appendix II - Diagnostic therapeutic / treatment codes (what the clinician aims at treating)

Site	Codes	Examples
CNS	**CNS**	Infections of the **C**entral **N**ervous **S**ystem
EYE	**EYE**	Therapy for Eye infections e.g., Endophthalmitis
ENT	**ENT**	Therapy for **E**ar, **N**ose, **T**hroat infections including mouth, sinuses, larynx
	AOM	Acute otitis media
RESP	**LUNG**	Lung abscess including aspergilloma
	URTI	**U**pper **R**espiratory **T**ract viral **I**nfections including influenza but not ENT
	Bron	Acute **Bron**chitis or exacerbations of chronic bronchitis
	Pneu	**Pneu**monia or LRTI (lower respiratory tract infections)
	COVID-19	Coronavirus disease caused by SARS-CoV-2 infection
	TB	Pulmonary TB (Tuberculosis)
	CF	Cystic fibrosis
CVS	**CVS**	**C**ardio**V**ascular **S**ystem infections: endocarditis, endovascular device e.g pacemaker, vascular graft
GI	**GI**	Gastro-Intestinal infections (salmonellosis, *Campylobacter*, parasitic, etc.)
	IA	**I**ntra-**A**bdominal sepsis including hepatobiliary, intra-abdominal abscess *etc*.
	CDIF	*Clostridioides difficile* infection
SSTBJ	**SST**	**S**kin and **S**oft Tissue: Cellulitis, wound including surgical site infection, deep soft tissue not involving bone e.g., infected pressure or diabetic ulcer, abscess
	BJ	**B**one/**J**oint Infections: Septic arthritis (including prosthetic joint), osteomyelitis
UTI	**Cys**	Lower Urinary Tract Infection (UTI) : cystitis
	Pye	Upper UTI including catheter related urinary tract infection, pyelonephritis
	ASB	Asymptomatic bacteriuria
GUOB	**OBGY**	**Ob**stetric/**Gy**naecological infections, **S**exually **T**ransmitted **D**iseases (**STD**) in women
	GUM	**G**enito-**U**rinary **M**ales + Prostatitis, epididymo-orchitis, STD in men
	Syph	Syphilis
No defined site (NDS)	**BAC**	Bacteraemia or fungaemia with no clear anatomic site and no shock
	SEPSIS	Sepsis of any origin (eg urosepsis, pulmonary sepsis etc), sepsis syndrome or septic shock with no clear anatomic site. Include fungaemia (candidemia) with septic symptoms
	Malaria	
	HIV	Human immunodeficiency virus
	PUO	**P**yrexia of **U**nknown **O**rigin - Fever syndrome with no identified source or site of infection
	PUO-HO	Fever syndrome in the non-neutropenic **H**aemato–**O**nco patient with no identified source of pathogen
	FN	**F**ever in the **N**eutropenic patient
	LYMPH	**Lymph**atics as the primary source of infection eg suppurative lymphadenitis
	Sys-DI	Disseminated infection (viral infections such as measles, CMV …)
	Other	Antimicrobial prescribed with documentation but no defined diagnosis group
	UNK	Completely **Unk**nown Indication
	PROK	Antimicrobial (e.g. erythromycin) prescribed for **Prok**inetic use

Appendix II, next - Codes for surgical and medical prophylaxis

Site	Codes	Examples
CNS	**Proph CNS**	Prophylaxis for CNS (neurosurgery, meningococcal)
EYE	**Proph EYE**	Prophylaxis for Eye operations
ENT	**Proph ENT**	Prophylaxis for **E**ar, **N**ose, **T**hroat (**Surgical or Medical prophylaxis=SP/MP**)
RESP	**Proph RESP**	Pulmonary surgery, prophylaxis for **Resp**iratory pathogens e.g. for aspergillosis
CVS	**Proph CVS**	**C**ardiac or **V**ascular Surgery, endocarditis prophylaxis
GI	**Proph GI**	**G**astro-**I**ntestinal tract surgery, liver/biliary tree, GI prophylaxis in neutropenic patients or hepatic failure
SSTBJ	**Proph BJ**	Prophylaxis for SST, for plastic or orthopaedic surgery (**B**one or **J**oint)
UTI	**Proph UTI**	Prophylaxis for urological surgery **(SP)** or recurrent **U**rinary **T**ract **I**nfection **(MP)**
GUOB	**Proph OBGY**	Prophylaxis for **OB**stetric or **GY**naecological surgery (SP: section caesarean, no episiotomy; MP: carriage of group B streptococcus)
No defined site (NDS)	**MP-GEN**	Drug is used as **M**edical **P**rophylaxis in **gen**eral, without targeting a specific site, e.g. antifungal prophylaxis during immunosuppression

Appendix II, next - Codes for Neonates

Site	Codes	Examples
Neonatal	**MP-MAT**	**M**edical **P**rophylaxis for **Maternal** risk factors e.g. maternal prolonged rupture membranes
	NEO-MP	Drug is used as **M**edical **P**rophylaxis for **Newborn** risk factors e.g. VLBW (Very Low Birth Weight) and IUGR (Intrauterine Growth Restriction)
	CLD	Chronic lung disease: long-term respiratory problems in premature babies (bronchopulmonary dysplasia)

APPENDIX III - Type of Indication

CAI Community acquired infection	Symptoms started ≤ 48 hours from admission to hospital (or present on admission).		
HAI Healthcare Associated Infection: Symptoms start **48 hours after admission** to hospital	**HAI1** Post-operative surgical site infection (within: 30 days of surgery OR; 90 days after implant surgery)		
	HAI2 ***Intervention*** related infection of mixed origin (mixed infection such as mix of CVC-BSI, PVC-BSI, VAP, CAUTI; or related to tubes/drains)		
	HAI2-CVC-BSI (Central Venous **Catheter**-related Blood Stream Infection)		
	HAI2-PVC-BSI (Peripheral Vascular **Catheter**-related Blood Stream Infection)		
	HAI2-VAP (Ventilator Associated **Pneumonia**)		
	HAI2- CAUTI (Catheter Associated **Urinary** Tract Infection)		
	HAI3 *C. difficile* associated diarrhoea (CDAD) (>48 h post-admission or <30 days after discharge from previous admission episode.		
	HAI4 Other than device related hospital acquired infection of mixed or undefined origin (HAP, UTI, BSI)		
	HAI4-BSI Blood Stream Infection, not intervention related		
	HAI4-HAP Non-intervention related Hospital Acquired **Pneumonia** (not VAP)		
	HAI4-UTI **Urinary** Tract Infection, not intervention related		
	HAI5 Patient **referred** from another to the participating hospital with an existing HAI determined and documented on Day 1 of admission or patient **readmitted** <48h after stay in another hospital, with infection present on current admission or within 48 hours (patient with infection from another hospital).		
	HAI6 Infection present on admission from long-term care facility (LTCF) or Nursing Home*		
SP Surgical prophylaxis**	**SP1** Single dose	**SP2** one day	**SP3** >1 day
For **surgical patients**, administration of prophylactic antimicrobials **should be checked in the previous 24 hours** in order to encode the duration of prophylaxis as either one dose, one day (= multiple doses given within 24 hours) or >1 day. See more explanation and **table** in **protocol page 8** !			
MP Medical prophylaxis	For example long term use to prevent UTI's or use of antifungals in patients undergoing chemotherapy or penicillin in asplenic patients *etc*.		
OTH Other	For example erythromycin as a motility agent (motilin agonist).		
UNK	Completely unknown indication		

Device related HAI

Select 1 possibility for each reported antimicrobial

*Long-term care facilities represent a heterogeneous group of healthcare facilities, with care ranging from social to medical care. These are places of collective living where care and accommodation is provided as a package by a public-agency, non-profit or private company (e.g. nursing homes, residential homes).
**Surgical prophylaxis includes those antibiotics prescribed before and after a surgical intervention (surgery in the operation room). The code SP1, SP2, SP3 goes with a diagnostic code preceded by 'proph' (e.g. 'proph GI')

APPENDIX IV – list of micro-organisms by resistance type

Microorganisms (MO)	Code	Resistance type - 1	Resistance type - 2	Resistance type - 3
Staphylococcus aureus	STAAUR	MRSA		
Staphylococcus epidermidis	STAEPI	MRCoNS		
Staphylococcus haemolyticus	STAHAE	MRCoNS		
Other coagulase-negative staphylococci (CNS)	STAOTH	MRCoNS		
Streptococcus pneumoniae	STRPNE	PNSP	MLS	
Streptococcus spp., other or not specified	STROTH	MLS		
Enterococcus faecalis	ENCFAE	VRE		
Enterococcus faecium	ENCFAI	VRE		
Enterococcus spp., other or not specified	ENCOTH	VRE		
Neisseria meningitidis	NEIMEN	Other MDRO		
Neisseria gonorrhoeae	NEIGON	Other MDRO		
Listeria monocytogenes	LISMON	Other MDRO		
Citrobacter freundii	CITFRE	ESBL	3GCREB	CRE
Citrobacter spp., other or not specified	CITOTH	ESBL	3GCREB	CRE
Enterobacter cloacae	ENBCLO	ESBL	3GCREB	CRE
Enterobacter spp., other or not specified	ENBOTH	ESBL	3GCREB	CRE
Escherichia coli	ESCCOL	ESBL	3GCREB	CRE
Klebsiella aerogenes	KLEPAE	ESBL	3GCREB	CRE
Klebsiella pneumoniae	KLEPNE	ESBL	3GCREB	CRE
Klebsiella oxytoca	KLEOXY	ESBL	3GCREB	CRE
Klebsiella spp., other or not specified	KLEOTH	ESBL	3GCREB	CRE
Proteus mirabilis	PRTMIR	ESBL	3GCREB	CRE
Proteus vulgaris	PRTVUL	ESBL	3GCREB	CRE
Proteus spp., other or not specified	PRTOTH	ESBL	3GCREB	CRE
Serratia marcescens	SERMAR	ESBL	3GCREB	CRE
Serratia spp., other or not specified	SEROTH	ESBL	3GCREB	CRE
Morganella spp.	MOGSPP	ESBL	3GCREB	CRE
Providencia spp.	PRVSPP	ESBL	3GCREB	CRE
Salmonella enteritidis	SALENT	ESBL	3GCREB	
Salmonella typhi or *paratyphi*	SALTYP	ESBL	3GCREB	
Salmonella typhimurium	SALTYM	ESBL	3GCREB	
Salmonella spp., other or not specified	SALOTH	ESBL	3GCREB	
Shigella spp.	SHISPP	ESBL	3GCREB	
Yersinia spp.	YERSPP	ESBL	3GCREB	
Other *Enterobacterales*	ETBOTH	ESBL	3GCREB	CRE
Acinetobacter baumannii	ACIBAU	ESBL-NF	CR-NF	
Acinetobacter spp., other or not specified	ACIOTH	ESBL-NF	CR-NF	
Pseudomonas aeruginosa	PSEAER	ESBL-NF	CR-NF	
Stenotrophomonas maltophilia	STEMAL	CR-NF		
Burkholderia cepacia	BURCEP	CR-NF		
Burkholderia pseudomallei	BURPSE	CR-NF		
Burkholderia mallei	BURMAL	CR-NF		
Pseudomonadaceae family, other or not specified	PSEOTH	ESBL-NF	CR-NF	
Campylobacter spp.	CAMSPP	Other MDRO		
Helicobacter pylori	HELPYL	Other MDRO		
Clostridioides difficile	CLODIF	Other MDRO		
Clostridium spp., other or not specified	CLOOTH	Other MDRO		
Other bacteria Mycobacterium, atypical	MYCATY	Other MDRO		
Mycobacterium tuberculosis complex	MYCTUB	Other MDRO		
Other bacteria	OTHER	Other MDRO		
Candida spp.	CANSPP	Azoles		
Aspergillus spp.	ASPSPP	Azoles		
Other fungi	FUNG_	Azoles		