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|  | **Global Point Prevalence Survey of**  **Antimicrobial Consumption and Resistance**  **FREQUENTLY ASKED QUESTIONS** |

**Year 2021**

**Questions related to defining a ward, inclusion and exclusion criteria**

1. **Question:**

**How should I define and encode a Gynaecology-Obstetrics ward?**

**Answer:**

A Gynaecology-Obstetric ward may admit several kind of different patients among which 1) healthy pregnant women who did not yet deliver, healthy women who have delivered with their baby, 3) pregnant women in observation with pathology, 3) non-pregnant women admitted with a gynaecological pathology.

***Encode this ward into two wards***:

1. Ward 1 ***counts all women*** whether they are pregnant or not, having a pathology or not. Encode this ward as AMW (Adult Medical Ward), with main activity medicine. If a considerable number of surgery patients are admitted as well, count the attributable beds and patients with suspected or who had surgery and define the ward with MIXED activity (thus medicine and surgery). Attribute the number of beds and patients among the 2 different activities
2. Ward 2 ***counts all babies*** born before 8am on the day of the survey. Count the number of baby beds and the number of babies admitted (born) before 8am (=denominator). Encode this supplementary ward as a NMW (Neonatal Medical ward). Name this ward preferably ***‘nursery’*** ward.
3. **Question:**

**How do I count the mothers and babies admitted on a Gynaecology-Obstetrics ward? Which mothers and babies are included or excluded?**

Answer:

A  mother may deliver polyclinic and might be discharged from the hospital within 24 hours after admission. These admissions (mother and child!) are to be considered as ***day care admissions*** and need to be ***excluded from the survey*** because they are, following the protocol, defined as ambulatory care patients (day cases).

Remember also always the inclusion criteria as defined in protocol:

* Include women who were admitted before 8am and of course still present at 8am. Women admitted after 8am are excluded and not counted in the denominator and numerator.
* Babies present on the ward before 8am are counted (if not defined as a day care admission!, see above), those born after 8am are excluded from the survey.

1. **Question:**

**The ward under surveillance on a particular day is completely occupied (bed occupation=100%), and some patients, normally belonging to this ward, are admitted on another ward. Do I also count these patients admitted on the other ward?**

**Answer:**

**NO,** only count the patients (and beds) belonging to the ward you are auditing on the day of the PPS. Look at the ‘real situation’ of the particular ward on the day of the PPS.

1. **Question:**

Should also **psychiatric wards and cases** be included ?

**Answer:**

YES, include also the psychiatric wards/cases; encode as AMW (adult medical ward). In the “ward name”, specify preferably as a psychiatric ward. Whenever you want to analyse your data afterwards, you will then be able to e.g. consider this ward differently as appropriate.

1. **Question:**

How should I define and encode a **Coronary Care Unit (CCU).**

**Answer:**

Encoding the **CCU** depends on the level of service offered.

* If it is a slightly more caring ‘general cardiac medical ward’’ with  (some) monitored beds it is medical. Encode as an **AMW** (Adult Medical Ward) **with activity Medicine**.
* If the ward has a doctor at all times and the nurse to patient ratio is 1:3 or better (1:2 or 1:1) then it is an adult-ICU. Encode as **AICU** (Adult Intensive Care Unit) **with activity Intensive Care**.

1. **Question:**

Are patients under **hospital-at-home care** **or receiving Outpatient Parenteral (iv) Antibiotic Therapy (OPAT),** to be counted as inpatients and consequently counted for surveillance? This means that a nurse goes to their home to give them their IV antibiotics. They are reviewed in the hospital e.g. weekly, but are not re-admitted.

**Answer:**

Although they can be considered as inpatients, they are **NOT** counted in the surveillance, because their attendance behaviour resembles day patients. Exclude these patients.

1. **Question:**

On the "**Ward Form**"  there are two areas I would like to be clarified:

* Total number of eligible patients - do I record the total number of inpatients on the ward at 8am on the day of survey, or is it the total number of inpatients on antibiotics?
* Total number of beds - is this the total number of beds on the ward, or is it the total number of occupied beds?

**Answer:**

1. **Total number of** **eligible** **patients** = total number of patients (whether on antibiotics or not, thus all patients) admitted and occupying a bed on the ward at 8am on the day of the survey.
2. **Total number of beds**= total number of available beds on the ward, whether occupied or not.

- The first denominator allows us to calculate antimicrobial use rates (N patients on antibiotics at 8am on the day of the survey /total number of patients present on the ward at 8am on the day of the survey)

- The second denominator allows us to calculate bed occupancy (N patients admitted on the ward at 8am on the day of the survey/total N beds available on the ward at 8am on the day of the survey)

**The terminology eligible** refers to these admitted patients corresponding to the inclusion and exclusion criteria defined by the protocol . E.g. **exclude** outpatients, day hospitalizations, day surgery, and exclude patients admitted after 8am (**all these patients are excluded from the denominator and of course also from the numerator**).

1. **Question:**

**Patients admitted after 8:00am** to the ward, should they be included in the denominator data (ward form)?

**Answer:**

Patients admitted after 8:00am to the ward are excluded from the denominator (ward form) and numerator (patient form).

1. **Question:**

**How to attribute a department type for departments admitting patients with different specialities**?

**Answer:**

A **mixed PICU and NICU** department is preferably encoded as a PICU department. Alternatively a **ward can be split up** if the number of NICU and PICU assigned beds for the mixed NICU-PICU ward is reasonably stable. Define than the ward into 2 different wards (a PICU and NICU ward). The decision to **artificial create two wards** will also depend on the number of attributed beds. If for example only three beds are attributed to neonates, it is better to encode these beds together with the PICU beds under one single PICU ward. During analyses, neonates will be recognized by their age.

A ward admitting a **mix of pneumo and cardio adult patients** **can preferably be split up** if the number of pneumo and cardio assigned beds for the mixed pneumo-cardio ward is reasonably stable (make two wards of it: P-AMW for pneumo patients versus AMW for cardio patients). Note: pneumo and cardio patients have different risk of being on antibiotics! Alternatively, you can attribute this whole ward to one specialty whereby you choose for the specialty with most beds and/or admitting most patients.

The different departments are ***manually******entered*** into the *Global-PPS* program. Therefore, click in the menu Departments/New to add supplementary departments. Saved departments are visible under the item Departments/Overview.

1. **Question:**

**There is only one overall NICU level defined**?

**Answer:**

There is only one possibility to define a NICU department (code NICU). For later analyses, you can define in the **WARD NAME** the highest level of specialty (NICU level 1, level 2 or level 3) or the level presenting the most patients if a NICU covers several level “types”.

* **NICU–level 1:** Special care only Neonatal Units
* **NICU–level 2:** Medium Neonatal Units. High dependency care + short term Intensive Care. Low birth weight newborns care
* **NICU–level 3:** Large Neonatal Units. Tertiary referral care. Very low birth weight care

1. **Question**:

I want to register data from another hospital, can I do this with the same ID code or do I need to do another registration for another hospital ?

**Answer:**

**EACH hospital needs to be uniquely registered**. So, if you enter data for several different hospitals, you need to register each hospital separately. As such, each hospital will get his own hospital code. Subsequently, you will also need to define for each unique hospital its departments at institutional level.

1. **Question**:

I prefer to **split up full wards whereby patients of different specialities are admitted** because of their different outcomes towards expected antibiotic use rates, for example gynaecology/maternal care; intensive care/orthopaedics; nephrology/gastroenterology etc.

**Answer:**

This is possible and could be advisable if the assigned beds for the mixed specialities are reasonably stable in time. This could be interesting to do especially if the ward admit a high number of patients by each speciality. Consequently 2 different wards are defined at institutional level (go online to Departments/New).

1. **Question**:

We have a department of which 75% of beds are neurology and 25% of beds are for neurosurgery. Should I encode this as a medical ward with **mixed activity** or should I complete two different ward forms? And what should I choose for **department type**?

**Answer:**

At institutional level encode one single department (online under departments/New) and give it the name e.g. neuro. Define with department type = AMW (adult medical ward). On the day of the PPS, encode this ward with mixed activity (on ward form) for which your denominators are 75% of beds=medicine and 25% of beds=surgery + count the number of admitted patients for both activities. For the patient who is on antibiotics, note down the correct activity of the patient form (=next to ward name).

1. **Question**:

We have a surgery department admitting different kind of surgery types (orthopaedics, plastic surgery, ORL, ophtalmo) with the majority of beds being for orthopaedics. Should I encode this as surgical ward with no **mixed activity** or should I encode this as 4 **different wards**?

**Answer:**

You can decide to encode this as one surgical department at institutional level (with non-mixed ward at survey level). But you can also decide to artificial split up this department into two departments because it could be interesting for you to get antimicrobial us rates eg for the orthopaedic patients only: one department including all orthopaedic beds and another including all other specialities. This need to be done at institutional level (go online to departments/New). Subsequently encode correct denominators (go to Survey/New Ward) and patients on antimicrobials into the correct corresponding ward.

1. **Question**:

Should mothers in the **delivery room** be included into the survey?

**Answer:**

If these women occupy a bed on the “maternity ward” at 8 am on the day of the survey, yes include these women also into the denominator (N admitted eligible patients).

1. **Question**:

We have one **IC unit**, but both surgical and medical patients are encountered there. The surgical patients are in transition between recovery and the ward. They usually stay there for one or two days in observation. The question is, do we have to register our IC as a mixed ward and split up Medical / Surgical? Or do I just say it is intensive care and for the surgical patients I go back 24h for the prophylaxis.   
**Answer:**

Encode the ICU ward with ICU activity only as they receive intensive care. From other variables such as indication and diagnosis, we will know that these patients e.g. underwent surgery or not. If they receive surgical Prophylaxis encode indication =SP1, 2 or 3.

1. **Question**:

On our ward abdominal surgery (=ASW) are 30 beds available. Today, at 8am there were 20 patients admitted from which 4 medical and 16 surgery patients. What should I complete as the number of available beds for the two activities, because there is **no fixed number of beds attributed to both activities**?

**Answer:**

Divide reasonably the empty available beds over the two activities. In this case equally divide the beds with a ratio ¼ = 1 extra bed/4 admitted patients. This would give:

* 16 surgery patients for 24 beds (thus 8 extra beds attributed for activity surgery)
* 4 medical patients for 6 beds (thus 2 extra beds attributed for activity medicine)

1. **Question**:

Should I enter the data on wards where **patients are without antibiotic therapy**; thus complete only data related to wards = denominators?

**Answer:**

Yes, you should complete the wards denominators also for these wards where no single patient seems to be antimicrobial(s) on the day of the PPS. For these wards the antimicrobial use rate will be zero.

1. **Question**

Compared to last year, some wards in our hospital were ‘shuffled’ around, i.e. they **need to be renamed**. How to best enter the data for this year, so that any comparison with last year’s data is now with the correct relabelled wards?

**Answer:**

* If the activities of the wards have not changed (medical, surgical, ICU): please **create new wards, with a new unique name**. For your own convenience you could choose a name that also refers to the old ward (e.g. wardX – old wardA). Or you could add this information in the description of the ward.

**Questions related to patient form and patient characteristics**

1. **Question:**

**Should data be collected on antimicrobial exposition during the whole day of surveillance?**

**Answer:**

No, the time of **8 o’clock** am is important. Look into the files and see who exactly had an antimicrobial prescribed at this time of 8 o’clock. Any on-going treatment including antibiotics that were given the previous day but are being continued on the day of survey should be included. Thus if you see a prescription where a dose was given the previous day and it is on-going, please include it even if the dose is, for example, once daily at noon. On the other side, an antibiotic prescription which was not prescribed yet at 8 o’clock, e.g. prescribed for first time at 1pm on that day, should not be reported in the survey.

1. **Question:**

* **What does the question mean: “Is a stop/review date documented?”**
* For example: if the primary team did not specify a specific date to stop the antibiotic, but noted in the notes to continue antibiotic till "cultures are ready" or "awaiting infection disease physician to review", would this be a "yes" for this field?

**Answer:**

* It means whether in the patient file or in any other document an **end date to stop** the antibiotic treatment or prophylaxes or a **review date to re-evaluate** the antibiotic treatment or prophylaxes **is written down** (somewhere).  So, it needs to be written down, not just any oral communication.
* With respect to the example: If cultures will come and if the advice from a disease physician is asked for and if he/she will come of course; then note down “Yes” for this field.

1. **Question:**

**How should a parenteral (IV) continuous way of antibiotic administration be reported, e.g. continuous 24 hours administration of vancomycin through a pump system?**

**Answer:**

Provide the total dose divided by 24. E.g:

* Drug name = vancomycin
* Administered ***single*** dose= total dose over 24 hours **/ 24 (=total dose divided by 24)**
* Unit of dose = mg
* Times a day = 24
* Route = P

1. **Question:**

The global PPS patient form asks whether the treatment is based on a biomarker and if yes, which one. **Are WBC and temperature classified under the category “other biomarker”?**

**Answer:**

Disregard WBC and temperature, they do NOT fall under the category “other”. Classify **only lab biomarkers** under the category “Other biomarker”.

1. **Question:**

What is the type of indication for an infant admitted **directly after birth** from delivery room and now is under **treatment for sepsis and have no history of PROM**?  Is it a community acquired (CAI) or hospital acquired (HAI) infection?

**Answer:**

By definition, if symptoms started before 48 hours after admission (=here birth in hospital), than community acquired; if symptoms occurred 48 hours after admission, encode as hospital acquired. All early onset sepsis (ie at age <48 hours) is classified as community acquired according to the protocol. Encode as sepsis.

1. **Question:**

Often, antibiotics are prescribed because many diseases can simulate sepsis and also because of uncertainty about diagnosis. In many cases of **NICU patients** it is hard to find any clue for localized Infection like as pneumonia, meningitis. So the reason for treatment is **sepsis or sepsis like syndrome**, or fear of sepsis!? One example is treating a patient with diagnosis of respiratory distress syndrome by antibiotics for sepsis. What is the **"Diagnostic code"** in this patient and similar ones?

**Answer:**

This depends on several factors. First consider the time frame of the treatment decision. If you have a policy whereby all premature newborns with or without certain risk factors get treated with antibiotics directly after delivery indicate NEO-MP (= medical prophylaxis for newborn risk factors). If the treatment is being started any later, this is not prophylaxis in the strictest sense, because there are clinical signs and symptoms, whether they are due to infection or otherwise. In such a case it is advised to put either Pneu (pneumonia or LRTI) or sepsis, depending on the clinical picture (isolated respiratory signs and symptoms or more generalized signs and symptoms). If fear of sepsis is the reason for treatment, then one could indicate sepsis.

1. **Question:**

Can the administration of azithomycin **as prophylaxis for exacerbation of COPD** be put under the **diagnostic** **code Proph RESP** or else?

**Answer:**

This prophylaxes is targeting a specific target organ. It concerns medical prophylaxis (MP) for respiratory pathogens in COPD patients. **Encode this case as Proph RESP**, **it includes surgical (SP) as well as** **medical prophylactic (MP) use;** and it is clear that the respiratory tract is the target organ. Next, the differentiation between types of prophylaxis lies in the ‘indication codes’ MP and SP1-SP3. So Proph RESP is often (not always) MP whilst e.g. PROPH BJ usually refers to SP.

1. **Question:**

How to define a patient with **urosepsis**, a sepsis whereby the origin is known; knowing that the code “sepsis” is reserved for cases with no clear anatomic site. As Cys or Pye?

**Answer:**

Please define a patient with urosepsis as Pye/Cys (but **preferably Pye**, more likely this will cause sepsis) because the anatomic site is known. Other examples could be meningitis with sepsis: encode here as CNS as an anatomic site is known.

1. **Question:**

Treatment is often based on the clinical presentation of the patient; CRP is providing just one aspect on which a treatment is set. Does the variable “**Treatment based on biomarker**” refers to whether the treatment is ONLY based on a biomarker (independent of clinical sign or other indicators) OR can this field be completed as ‘yes’ if the result of the biomarker (eg CRP) is just a part of or adding to the decision to treat the patient.

**Answer:**

Answer “**Yes**” treatment is based on biomarker whenever the result of this test is available at 8am on the day of the survey, and **if this result solely OR complementary to other clinical signs or microbiological tests, contributed to the choice of treatment**.

1. **Question:**

If a patient receives a **targeted antibiotic** for an ESBL-producing Enterobacteriaceae, does it mean that this patient is really infected or is he suspected of these infections ?

**Answer:**

Whenever the treatment is targeted, the treatment is based upon a **microbiological result** (=a phenotypic sensitivity test such as an antibiogram). We herewith assume that there is enough evidence to say that the targeted treatment, for example was prescribed for a patient been really infected by an ESBL-producing enterobacteriaceae.

1. **Question:**

For **"targeted" therapy**, if initial therapy started with a broad spectrum antibiotic eg piptazo for UTI, and the organism in the urine after 3 days is E coli Sensitive to ampicillin, what should we score? The primary team is treating for UTI only and will like to continue with piptazo though de-escalation is possible. In these scenarios where de-escalation is possible, should this treatment still be put as "targeted"?

**Answer:**

Important what is known on the day of the PPS at 8 o’clock. Statement= a culture is taken for a microbiological test.

* If result is not yet known, then empiric (best guess)
* If result is known, in theory, than targeted

We want to keep it simple, thus score as targeted. Though, any resistant organism will be scored. But we will know that a microbiological result has been taken and was available at the time of the PPS, independently whether the most appropriate therapy was prescribed or accordingly adapted. But, here it makes sense to look very well at the quality indicator “Guidelines compliance” !! I

**If targeted, but not prescribed according to the microbiological result** (including de-escalation), **then NOT compliant to local guidelines !**

1. **Question:**

How do I record **guideline compliance** for a patient receiving a **combination therapy** whereby the first antibiotic was prescribed according the guidelines, but the second antibiotic was not? Should I subsequently encode both antibiotics or only this single second antibiotic as “**not** compliant following the guidelines” ?

**Answer:**

Yes, “you can” encode “**this single**” antibiotic as non-compliant.

It has been estimated that it is relevant that quality indicators will be evaluated in view of the combination of antibiotics prescribed for a particular diagnosis. We will analyse a combination therapy in this respect as follows:

* If antibiotic 1=compliant + antibiotic 2=compliant, then analysed and considered as compliant for this diagnosis.
* If antibiotic 1=compliant + antibiotic 2=not compliant, then analysed as not compliant.
* If antibiotic 1=compliant + antibiotic 2=compliant + antibiotic 3=not compliant, then analysed as not compliant for this diagnosis.

1. **Question:**

* A patient is receiving an antibiotic not prescribed according to the current local guidelines, but according to the advice of the infectiologist of the hospital. This was needed because the treatment appeared to be not effective. Should this antibiotic be recorded as **compliant with local guidelines or not**?
* And further: if there are no guidelines on a particular infection, but the infection disease specialist has saw and prescribed the antibiotics, would the guideline compliance be "Y" or "NA"?

**Answer:**

* Record an antibiotic, prescribed according to professional advice of an infectiologist as **“compliant” with** the current local guidelines. We hereby consider a professional advice from an infectious disease specialist to be superior to a local directive.
* **The infection disease specialist** stands above local guidelines, whether available or not, his **decision prevails**. If a therapy is prescribed following his decision, then YES it is according to the guidelines.

1. **Question:**

If the choice of drug is compliant, but the **dose is non-compliant**, do I say that the therapy is non-compliant? E.g. febrile neutropenia patient on Tazocin according to our local guidelines but insufficient dose.

**Answer:**

Compliance to guidelines is just referring to the **choice of drug**, not the dosing, and also not the route of administration or duration of therapy. To keep it simple, in this case the treatment is according to the guidelines because the choice or type of antibiotic was according to the guidelines.

1. **Question:**

If a patient has been prescribed a combination of antibiotics for a single diagnosis, however the hospital guidelines recommend monotherapy, do you want us to mark both antibiotics as non-**compliant with guidelines**? E.g. Benzylpenicillin + Flucloxacillin prescribed for a patient with cellulitis. Our hospital guideline recommends flucloxacillin alone.

**Answer:**

Antimicrobials will need to be entered online one by one. We propose to enter:

for fluxcloxacillin = compliant=yes

for benzylpenicillin = not compliant=no

Afterwards, analyses on combination therapy will be done by diagnosis and then we will see that this combination was not completely according to the guidelines; and we will even know which was and which was not compliant.

1. **Question:**

Several oncology patients may receive **oral Nystatin for oropharyngeal candidiasis**. As nystatin is not absorbed from the gastro-intestinal tract and is applied locally (as a suspension) to the mouth (and swallowed subsequently) for treating local fungal infections, does this agent need to be included for this surveillance? What will be the diagnostic codes and type of indication?

**Answer:**

For the Global-PPS antimicrobials are recorded according to the WHO ATC classification system (<http://www.whocc.no/atc_ddd_index/?code=A07AA02>) whereby oral nystatin is given the ATC code A07AA02 (see also antimicrobial list), it is therefore **considered as an intestinal anti-infective**. Oral nystatin can be in the form of oral syrups, oral suspension, oral tablets, oral drops. These **are to be recorded for the Global-PPS**, though it could be considered for local use in the oral cavity, still in theory, they fall under the A07AA02 ATC code.

On the other side, nystatin creams can be considered for topical or vaginal use (ATC code D01AA01 and G01AA01) and are both not considered for this surveillance.

Diagnostic code= ENT

Indication= CAI (if symptoms started < 48 h after admission) OR HAI 4, 5 or 6, depending on the specific case (if symptoms started > 48 h after admission)

1. **Question:**

Should we encode following **routes of administration** as parenteral ?

**Answer:**

* Intramuscular = **parenteral**
* Subcutaneous = **parenteral**
* Amphotericin B instillation of the bladder for recurrent cystitis: antimicrobials administered during bladder instillations or other invasive procedures are not recorded
* Intrapleural erythromycin for pleurodesis: antimicrobials given during surgical or other invasive procedures are not recorded
* Antibiotic-loaded bone cement (PMMA) in orthopedic surgery: antimicrobials given during surgical or other invasive procedures are not recorded

1. **Question:**

How should **Rifaximin** for **treatment/prophylaxis of hepatic encephalopathy** be encoded.

**Answer:**

* Antimicrobial = Rifaximin
* Route= oral
* Diagnostic code= **Proph GI** (considered as prophylactic therapy to prevent hepatic encephalopathy)
* Indication= **MP**

1. **Question:**

How should **indication** be recorded for **patients on dialysis/chemotherapy/recipient of OPAT** for the past month and admitted for sepsis eg from pneumonia or UTI? Should we classify these as "healthcare related" infections?

**Answer:**

These patients are **considered as outpatients** who get their continued treatment (e.g. on particular days of the week) in the hospital (dialyses/chemo, OPAT), at least if they are not sleeping overnight! If **admission for sepsis** is required, this **is per definition a CAI**, although they had regular contact with the hospital before.

Outpatient procedures as dialyses/chemo/OPAT (if the case) are not really defined for this particular survey as a potential HAI. Thus, to keep it simple encode these particular cases as sepsis with indication=CAI as the infection occurred < 48hours after admission.

1. **Question:**

What should we encode, information based on the **START time of antibiotic, or DAY OF SURVEY**?

For example: a patient was admitted for lower limb swelling, and started on augmentin for suspected cellulitis. Few days later, the diagnosis changed to "superficial thrombosis of the iliac veins". The therapy with augmentin is continued, though they have ruled out cellulitis. For situations like this in which the diagnosis changed from a infectious to a non-infections one, what would the DIAGNOSIS and INDICATION be?

**Answer:**

Important : **write down the information what is available and applicable on the day of the survey (8am)**!

For the given example: patient’s with superficial thrombosis iliac veins on the day of the survey:

Diagnoses = Other

Indication = UNK unless the clinician has his own reason which could clarify the indication?

Reason in notes = yes if written in the files why this AB is prescribed for (independently whether appropriate or not)

Guideline compliance = seems to be here No

1. **Question:**

For organisms which are **Amp C-producers eg Serratia marcecens, Morganella morganii**, does they fall into any of the microbiology fields?

**Answer:**

Yes, score under **other MDRO**

1. **Question:**

A patient on meropenem with urine culture growing 3 organisms: E coli that is sensitive to all drugs tested, 3rd generation ceph resistant Kleb pneumoniae, Amp-C producing Morganella. In this case, only the latter 2 needs to be captured ?

**Answer:**

Yes:

* 3rd generation ceph resistant Kleb pneumonia = **3rd generation cephalosp. Resist. Enterob non-ESBL producing or ESBL status unknown,**
* Amp-C producing Morganella = **other MDRO**

1. **Question:**

Do we need to record the **weight** for adults or is it just in paediatrics? (we sometimes don’t get an accurate adult weight)?

**Answer:**

Weight is optional, not necessary for adults but **of great interest for children and neonates** !!!

1. **Question:**

If the **treatment is based on a biomarker**, does this only include therapy when the choice depends on CRP/PCT results? We often use CRP as an indicator for the presence of infection but not to decide on which treatment to initiate based on these results. Although they help with the diagnosis we don’t use them to guide which antibiotic to use.

**Answer:**

Indeed, if the treatment is based (and/or supported) upon CRP/PCT results. Itrefers to whether or not biomarker results are used to define the treatment. “To define “ means **the decision to treat with an antibiotic depend on CRP/PCT results** (their thresholds).

To score if used as **an indicator supporting the diagnosis**, and if **used in the decision to prescribe an antibiotic** (not in the choice of type of antibiotic).

1. **Question:**

Should we collect data on **eye drops**.

**Answer:**

Antibiotics for topical use, including eye drops are NOT to be recorded for this survey.

1. **Question:**

Lower respiratory tract infections in patients with **COPD or bronchiectasis** – do you want these recorded as diagnosis ‘Bron’ or ‘Pneu’ ?

**Answer:**

**Bron**; except if there is a diagnosis of a “identified pneumonia”, record than as **Pneu**.

1. **Question:**

Where a single antibiotic is being used for **more than one reason to treat**, how should this be recorded? E.g. patient in our audit was on Cefuroxime IV for both community acquired pneumonia and urinary tract infection.

**Answer:**

Only one single reason to treat (diagnosis) by antimicrobial can be recorded. A choice will need to be made. If applicable, you might take the very first identified infection for which the original AB was prescribed.

1. **Question:**

How should patients from the community which have been hospitalised in the past 90 days be scored if they present with an infection on this new admission? With a CAI or HAI?

**Answer:**

A HAI can only be scored here if it concerns “post-operative site infections” (=HAI1). In all other cases, **if the infection occurs at admission or < 48 after admission; score as a CAI.**

1. **Question:**

What is the diagnostic code for admitted pregnant mothers who get antibiotics for group B Streptococcus (GBS) colonization (positive)?

**Answer:**

Diagnostic code=**OBGY**

1. **Question:**

In the medical file it is written at 8 am that the 1st dose of the antibiotic need to be given at 10 am on the day of the PPS. Should I include this antibiotic?

**Answer:**

This **antibiotic** is not **active or ongoing** yet, do not report this antibiotic.

1. **Question:**

A patient was on parenteral antibiotic use, but just before the day of the survey, the intravenous line had to be removed. And the day after, on the day of the PPS, the same antibiotic was orally started, but only in the afternoon. Should I still record this antibiotic?

Answer:

This antibiotic is to be considered as an **ongoing antibiotic** and thus to be included into the survey. Record the parenteral antibiotic prescription because the oral antibiotic was only started after 8am on the day of the survey.

1. **Question:**

How should we score the indication if a patient was re-admitted 4 days after discharge of the same hospital? Is this a **HAI or a CAI**? And if an HAI, after how many days should we consider this as a HAI?

**Answer:**

Only surgical site infections can be scored as a HAI1 after re-admission. Thus, if it is not a surgical site infection, this infection needs to be scored, following the protocol as a CAI, although it could well be that the infection occurred following previous hospital admission.

1. **Question:**

We had a patient on day hospitalisation-onco ward, but got fever at start of the chemotherapy and subsequently got admitted. How should we score the indication: a **CAI or a HAI**?

**Answer:**

If the infection occurred at admission or < 48 hours after admission, then score as a CAI.

1. **Question:**

Burns patients : many of these patients undergo debridement early in their admission. They subsequently grown organisms that are likely to come from their experience in the community. At what point post debridement do I consider this to be a **CAI or a HAI**?

**Answer:**

To keep it simple, consider the strict definitions of a CAI (infection at admission or occurred < 48 hours after admission) and HAI (infection occurred >=48hours after admission).

1. **Question:**

How should I interpret **empiric versus targeted therapy**. As I understood, we need to score targeted whenever the result of the culture is available. But what if the clinician has not yet read the results and changed the therapy at 8am on the day of the PPS? Should we score targeted as we know he will certainly adapt the therapy during his next theatre round?

**Answer:**

For this survey, 8am is taken as a cuttoff = a time point of reference. Score targeted whenever the installed prescribed therapy is based on a microbiological result “at 8am on the day of the PPS”. So, if the clinician only sees the patient at 10am and only then takes into account and revises the therapy according to the available microbiological result, still record the prescribed antibiotic which was recorded in the notes at 8am on the day of the PPS.

1. **Question**

In the medical file the diagnosis is clearly mentioned (e.g. pneumonia, increased CRP, etc) but it is not mentioned specifically that on basis of this the antibiotic (e.g. augmentin) was started. Should we score this as yes or no for **reason to treat**. Or can we only score yes for reason in notes when for example is written down “pneumonie start augmentin”.

**Answer:**

With reason in notes, the **reason why an antibiotic is prescribed should be “written” somewhere** in the notes (medical, nursery files or other) at the start of the therapy or prophylaxes. Even when it is clear for everybody working at the service that for example augmentin has been started because of the pneumonia, this is not enough. It needs to be written down so this is clear to anybody (e.g. a visiting medical student or replacement clinician) consulting the medical or nursery files!

1. **Question**

We have several elderly patients where an **antibiotic is started based on elevated CRP**. How should I score the diagnosis and indication for such kind of patients?

**Answer:**

Diagnosis=other

Indication=other

Guideline compliance=NA (not assessable because no local guidelines for the specific indication)

Treatment=E

Treatment based on biomarker=yes

Which biomarker=CRP

1. **Question**

For **antibiotic prophylaxis** e.g. Cefazolin for orthopaedic surgery prophylaxis, do you want this recorded as **‘targeted’ or ‘empiric’ therapy**? Or do we leave this box blank?

**Answer:**

You can insert as empiric but you can also leave this field open when SP is recorded. There is an online check implemented online for this: if type of indication=SP1 or SP2 or SP3 or MP; then treatment field (E or T) is optional (can thus be left open). Also the field “Treatment based on biomarker data” can be left open because this is not relevant for prophylaxis either.

1. **Question**

Where a single antibiotic is being used for **more than one indication**, how would you like this recorded? E.g. patient in our audit was on Cefuroxime IV for both community acquired pneumonia and urinary tract infection.

**Answer:**

There can “only one reason to treat” be recorded, you will need to make a choice but we have not defined in the protocol how this choice should best be made. If applicable, maybe take the very first identified infection for which the original AB was prescribed?

1. **Question**

We have several patients who are receiving every other day levofloxacin, either 500mg or 750 mg every other day based on hemodialysis or altered renal function. How should I record the **single unit dose** and **doses/day** on the patient form?

**Answer:**

This concerns an **ongoing antibiotic treatment**, certainly note down this antibiotic, also if the person is not receiving this antibiotic by accident on the day of the PPS.

If on the day of the PPS “or” the day before, the person got levofloxacin 750mg as single unit dose, than note down as such (otherwise 500mg in case of 500mg).  Doses/day = 0.5 (=every 48 hours) (see also protocol page 16).

1. **Question –answer**

We have patients **taking medical prophylaxis once or twice a week**, and we see it on the patient chart without knowing if the patient is taking it on the day of the survey. What should we do with this case?  
**Answer:**   
This is an active antimicrobial which should be reported. Calculate here for the variable “times a day” the proportional use over a week. Calculate a fraction of the week doses.

* One week =168 hours
* 168 hours/3 times a week=56 or 168 hours/2 times a week=84
  + 24/56=**0.43 when administered 3 times/week**
  + 24/84=**0.29 if administered 2 times/week**
* Enter online the unit dose of the antimicrobial; and next the according fraction of times/day

1. **Question -answer**

Which **diagnostic codes** should be attributed for antibiotics prescribed for:

* Cystic fibrosis exacerbations (commonly referred to as ‘tune-ups’) = for pulmonary exacerbation and if e.g. also supported by positive RX; record Pneu
* Respiratory exacerbations in lung transplant patients = Pneu
* Cholecystitis = GI; except if accompanied with intra-abdominal sepsis, then record IA
* Cholangitis = IA if accompanied with biliary sepsis
* Diverticulitis = if infected diverticula, then GI
* Colitis= GI
* Gastritis=GI
* Medical prophylaxis for COPD=Proph RESP
* Asymptomatic bacteriuria in a patient with diabetes mellitus = CYS (at least if the diabetic patient has no kidney infection). Encode here with indication= CAI if based on culture <48h of admission or HAI2 if related to catheter and based on culture >48 h after admission; or HAI4 (not related to catheter) or HAI5 - 6, depending.
* Hepatic encephalopathy = proph GI; and indication = MP
* prophylaxes concerning Cleft Lip and Palate = Proph BJ (prophylaxis for plastic or orthopedic surgery).
* Peritonitis and PD peritonitis = IA
* Medical Prophylaxis of Mycobacterium Avium complex in HIV = Proph RESP or Proph GI, depending on the anatomical site targeted (or MP-GEN if no specific site is targeted)
* Antiviral treatment for herpes zoster = SST / EYE in case of herpes zoster ophtalmicus / ENT in case of herpes zoster oticus / CNS in case of herpes zoster encephalitis
* Cytomegalovirus infection (CMV) = CNS in case of encephalitis / EYE in case of retinitis / FN if there is no defined site but the patient is neutropenic / OTHER if no information (only as a last resort)

1. **Question**

Prophylactic antibiotic for a TUR prostaat, should I score this as proph UTI or proph OBGY?

**Answer:**

Proph UTI.

1. **Question**

In our audit today I found a patient on metronidazole for c. difficile diarrhoea, however when looking at the microbiology I found that the micro data had been interpreted incorrectly and was actually negative for C. difficile. Do I go through the form as if this was a true diagnosis? If it had been a confirmed infection, the choice and guideline compliance would have been correct.

**Answer:**

For this PPS, keep it simple and straightforward: look what is written in the medical/nursery files; and not whether the diagnosis was correct or not. For this audit, keep to what is written in the medical notes at 8 am on the day of the survey. In this case, consider as a confirmed infection and compliant to guidelines.

1. **Question**

A child hospitalized at PICU receives his antibiotic treatment through **peritoneal dialysis**. How the “**route of administration**” should be recorded and how should the dose be reported as the dosage is expressed in mg/L of dialyses.

**Answer:**

* Route of administration=parenteral (as no other appropriate RoA is foreseen)
* Dose is to be calculated comparable with dose calculation in children= in mg/kg/day. Thus, express dose in mg/L of dialyses/day. Herewith, reassure yourself that the total dose administered/24 hours=unit dose x times à day.

1. **Question**

I have a patient with pseudomonas colonisation in sputum in 2014. They are admitted now in March 2015 and empirically put on piperacillin/tazobactam based on previous cultures – no cultures have been sent this admission yet. Do I classify this as ‘**empiric’ or ‘targeted’ treatment**? I can see an argument for each answer.

**Answer:**

Note this down as empiric as there was not taken a new culture during this new admission. We have not defined any timeframe on this, but record any treatment started in the hospital as empiric if not based on a microbiological result.

1. **Question**

“**Reason in notes**” – to be marked as a ‘yes’ if completed by the treating team, the doctor, or can any member of staff document it (e.g. pharmacist, nursing staff)? Often our pharmacists will annotate the drug chart with the indication following a discussion with the treating unit. Does this count as a ‘yes’?

**Answer:**

Record as “yes” because the aim of this question is to get to know whether it “**is visible/written down”** for/by the medical and/or nursery or other professional staff why a certain antibiotic is prescribed for. If the pharmacist annotate the drug chart with the indication, this is concordant with the aim of this variable.

1. **Question**

“**Reason in notes**” – our operation reports include a section where all administered drugs are recorded. It doesn’t specifically say “surgical prophylaxis”, however it a safe assumption that it is surgical prophylaxis. It may not be written anywhere else in the notes. Does this count as a ‘yes’ or ‘no’ for “reason in notes”?

**Answer**:

Recording the antibiotic on an operation report is fine and the assumption that this antibiotic will be prescribed for surgical prophylaxis is reasonable.  This can be” yes” for reason in notes.

1. **Question**

Patients that have been treated as CNS infections based on CSF analysis but have had **negative culture results or negative findings** in gram stain of the CSF. Should we categorize this **treatment as empirical**?

**Answer:**

At any time cultures are taken (blood, urine, cerebrospinal fluid, …) AND the results are available/known on the day of the PPS, AND is targeted against positive findings, encode the treatment as **targeted**. If the cultures were positive but not falling among the 9 listed organisms (MRSA, MRCoNS, …, other MDR organism), still encode the antibiotic as targeted, but leave the fields of the organisms empty (do not tick any of them). As such, we know that cultures were taken, that positive results were known at the day of the PPS, and that the antibiotic treatment was based on microbiological data that did not reveal any of the 9 micro-organisms.

If cultures were negative, encode as **empiric**.

1. **Question**

Patients with septic arthritis with negative cultures or gram stains but compatible numbers of **PMN or differential counts in articular fluid**. Should we enter **biochemical markers of CSF (Cerebrospinal fluid) or articular fluid as biomarkers** in the special row of the designed table of patient forms ?

**Answer:**

Counts on polymorphonuclear leukocytes (PMN, PML, or PMNL) in articular fluid is not scored as a **biomarker** for this PPS. Please score **only CRP and PCT**. Under other biomarker “erythrocyte sedimentation rate” (ESR or sed rate) can be scored to indirectly measure rate of inflammation.

1. **Question**

**Stop or review date** - we are a small hospital and have an **automatic stop order (ASO) of 3 days** on all antibiotics unless ordered otherwise to ensure they are reassessed appropriately. For the question on the patient sheet stop date or ASO how should we code this since most physicians know this and only write a stop date if treatment is to be longer than 3 days.( ie. they never write x 3 days)

**Answer:**

According to the protocol, the stop or review date should be documented in the notes. If the day of therapy is displayed in the patient chart or medical record (e.g. “day 1 of 3”), answer “Yes”. However, if the day of therapy or duration of treatment is **not explicitly stated** in the record, answer **‘No’**, even if the prescribing physician is aware of the ASO of 3 days.

1. **Question**

How should I classify patients who are in surgical wards but if the patient **developed symptoms of infection after surgery** as surgical or medical activity (Patients Form)?  And in the “ward form“ should I classify the ward as mixed?  
**Answer:**  
If on the day of the PPS at 8am patients who underwent surgery developed an infection, and by definition after 48 hours of admission, then encode as HAI1= a surgical site infection, unless he/she developed another infection, eg Pneumonia or else, then it can be encoded as HAI4. Or imagine an infection due to intravenous or other catheter use (catheter related blood stream infection), then HAI2  (see definitions of data collection forms: indication). If this patient with an infection remains hospitalized, rather encode this patient as a medical patient (define this person with ‘activity Medical’). Then you indeed also need to define this surgery ward as a mixed ward with activities Surgery and Medicine.

1. **Question**

When treatment choice is based on microbiological data, should the culture always be accompanied by a **sensitivity test** to be able to mark it as targeted? If it is based on a **positive culture only**, is it marked as empirical?  
**Answer:**   
Whenever you have a sensitivity test “for which the results are available” at 8am on the day of the PPS and the physician has prescribed the antibiotic according to this microbiological result, then, by definition it is definitely targeted, also if the results show that the microorganism is not resistant to any of the antibiotics (when all=S). This already is an important indicator, the more targeted prescribing, the better (case-finding and directed prescribing). Next, if the microbiological results shows one of the 9 organisms (eg MRSA) then score these. If none of the 9 seems to be present, then just leave all these fields empty

1. **Question**

For **combination drugs**, such as oral 4FDC for TB treatment, what are the doses and the units?

**Answer:**  
For combination products, **count all the active doses of the different substances together** and report as such in single unit dose. This is very important as combinations of drugs for treatment of tuberculosis get another ATC code . You will see you can select these combination products online.

1. **Question**

If you test a biomarker (PCT or CRP) **after the initiation of antibiotic therapy** (i.e. day after or 2 days after), do you answer yes or no to the question “antibiotic selected on the basis of a biomarker result”? The biomarker could have been used in this case not for the ATB initiation but more for the follow up/discontinuation process.  
**Answer:**   
The biomarker is only to be scored if the results contributed to the decision to treat (protocol says : It refers to whether or not biomarker results are used to define the treatment) and the biomarker result needs to be available at 8am on the day of the PPS. With respect to follow-up/eventual switch of AB treatment, one can argue that it can contribute, yes, but again if that result was available at 8am on the day of the PPS.

**Questions related to the patient HAI form**

1. **Question**

Which **invasive devices are scored** under the HAI module?

**Answer:**

***Invasive devices which can be scored are:***

* *Percutaneous endoscopic gastrostomy* (PEG) should be encoded as Tube/drain.

***Invasive devices which should not be scored are:***

* Although a *Nasogastric tube* (NGT) and *Nasojejunal tube* (NJT) are essentially considered as an invasive device, these are not scored as Tubes and drains. They are not passing the skin as such where we want to make the relation with SST infections; and they do not belong either to any other category eg (not IRI)
* *Arteriovenous fistula* is considered as a minimally invasive treatment option for hemodialysis, but is not scored as an invasive device for the Global-PPS.
* The invasive device *Port-a-Cath* as an implantable venous port is not scored as a central line.