

# NAUSP Quality Assurance

The aim of NAUSP Occupied Bed Day (OBD) Quality Assurance activities is to ensure all data comply with NAUSP definitions to ensure accuracy in the reports generated and the data used as part of the national surveillance of antimicrobial use for AURA. This fact sheet provides an outline of the Quality Assurance (QA) processes conducted by the NAUSP team.

Every six months (after submission of June and December data each year) hospitals are flagged for Quality Assurance (QA) and participants are asked to check and then send their completed Occupied Bed Day (OBD) template to the NAUSP team.

The NAUSP team undertakes verification of OBD figures uploaded in the portal, cross-checking drug usage and OBD inclusions and identification of inconsistencies in data.

In the period January to June 2019, 143 errors were identified during the QA process, representing a 17% error rate. This highlights the importance of continuing this process to ensure data accuracy and integrity, and benchmarking between hospitals can occur with confidence. Real examples are shown as below:

## The Quality Assurance Process

### Step 1: OBD figures

The OBD figures in the contributor hospital's completed OBD template should match the numbers entered into the NAUSP Portal. For example this contributor entered the ICU data in the non-ICU field and vice versa:

**\*\*\*\*\* Hospital - Occupied Bed Days 2018**

Accurate OBDs are essential to the accurate calculation of antimicrobial usage rates - i  
Please ensure included wards are all those from which antimicrobial usage data is sou

Please take care to ensure the correct wards are included! Ward usage and repor

| Ward Code                             | Jan-18      | Feb-18      | Mar-18      | Apr-18      | May-18      | Jun-18      |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Included wards</b>                 |             |             |             |             |             |             |
| ICU                                   | 338         | 351         | 341         | 332         | 414         | 427         |
| EMERG                                 | 257         | 262         | 267         | 319         | 301         | 331         |
| 1B                                    | 723         | 656         | 719         | 699         | 724         | 700         |
| 1D                                    | 693         | 659         | 721         | 698         | 727         | 718         |
| 1E                                    | 701         | 628         | 683         | 664         | 702         | 691         |
| 2A                                    | 860         | 755         | 829         | 808         | 818         | 821         |
| 2D                                    | 705         | 638         | 690         | 689         | 704         | 721         |
| 2X                                    | -           | 3           | 8           | 23          | -           | 45          |
| MAU                                   | 534         | 433         | 466         | 476         | 531         | 532         |
| CCU                                   | 197         | 176         | 191         | 179         | 213         | 210         |
| CSU                                   | 458         | 406         | 418         | 451         | 453         | 480         |
| MIHB                                  | -           | 2           | -           | -           | 1           | 4           |
| EECU                                  | 185         | 163         | 195         | 183         | 174         | 182         |
| 2B                                    | 722         | 715         | 692         | 767         | 801         | 762         |
| 2C                                    | 611         | 643         | 543         | 636         | 688         | 744         |
| 2E                                    | 616         | 606         | 629         | 651         | 674         | 653         |
| 2FN                                   | -           | -           | -           | -           | -           | -           |
| 2FX                                   | 196         | 263         | 260         | 279         | 285         | 294         |
| MAT                                   | 177         | 153         | 156         | 154         | 165         | 176         |
| MATL                                  | 78          | 72          | 78          | 73          | 61          | 72          |
| WHU                                   | 697         | 716         | 716         | 647         | 694         | 690         |
| Cardiac cath lab                      | -           | -           | -           | -           | -           | -           |
| <b>Non-ICU TOTAL (included wards)</b> | <b>8410</b> | <b>7949</b> | <b>8261</b> | <b>8396</b> | <b>8716</b> | <b>8826</b> |
| <b>ICU TOTAL</b>                      | <b>338</b>  | <b>351</b>  | <b>341</b>  | <b>332</b>  | <b>414</b>  | <b>427</b>  |

**National Antimicrobial Utilisation Surveillance Program**

Date From: 01 2018  
Date To: 06 2018

| Specialty                 | Period  | Original Value |
|---------------------------|---------|----------------|
| Intensive Care Unit (ICU) | 01/2018 | 338            |
| Other non-ICU             | 01/2018 | 8,410          |
| Intensive Care Unit (ICU) | 02/2018 | 351            |
| Other non-ICU             | 02/2018 | 7,949          |
| Intensive Care Unit (ICU) | 03/2018 | 341            |
| Other non-ICU             | 03/2018 | 8,261          |
| Intensive Care Unit (ICU) | 04/2018 | 332            |
| Other non-ICU             | 04/2018 | 8,396          |
| Intensive Care Unit (ICU) | 05/2018 | 8,716          |
| Other non-ICU             | 05/2018 | 414            |
| Intensive Care Unit (ICU) | 06/2018 | 427            |
| Other non-ICU             | 06/2018 | 8,826          |

### Step 2: Dispensing data by number and ward

The NAUSP team amalgamates six months of dispensing data in MS Excel and produces a table containing the number of antimicrobial products dispensed to each ward per month. These are then reviewed to check for missing data.

Ward data included in error can also be identified by reconciling this table against the ward inclusions in the OBD spreadsheet.

| Ward               | Jan | Feb         | Mar         | Apr         | May         | Jun         | (blank)     | Grand Total |
|--------------------|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| ANU                |     | 40          | 33          | 27          | 28          | 25          | 29          | 182         |
| BAX5               |     | 65          | 52          | 47          | 66          | 64          | 62          | 356         |
| BAX6               |     | 146         | 96          | 91          | 89          | 87          | 97          | 606         |
| BAX7               |     | 146         | 82          | 86          | 80          | 86          | 75          | 555         |
| ED                 |     | 127         | 118         | 110         | 114         | 131         | 116         | 361         |
| W6N                |     | 95          | 56          | 74          | 74          | 98          | 104         | 501         |
| W6S                |     | 32          | 36          | 28          | 23          | 27          | 24          | 170         |
| W7N                |     | 25          | 25          | 27          | 28          | 21          | 29          | 155         |
| W7S                |     | 45          | 51          | 39          | 51          | 45          | 38          | 269         |
| MH                 |     |             |             |             |             |             | 2           | 1           |
| W7B (Flex)         |     |             |             |             | 52          | 35          | 44          | 131         |
| CCL                |     | 2           | 5           | 4           | 1           | 3           | 4           | 19          |
| HW4                |     | 12          | 17          | 26          | 28          | 24          | 17          | 124         |
| HW5                |     | 93          | 87          | 91          | 100         | 77          | 64          | 512         |
| HW6                |     | 118         | 82          | 79          | 73          | 44          | 64          | 460         |
| HW7                |     | 99          | 79          | 76          | 99          | 74          | 89          | 516         |
| ICU                |     | 170         | 132         | 104         | 126         | 113         | 124         | 599         |
| RAPU               |     | 10          | 75          | 40          | 43          | 4           | 7           | 179         |
| SSU                |     | 22          | 20          | 15          | 22          | 13          | 20          | 37          |
| THEATRE            |     | 62          | 53          | 53          | 54          | 73          |             | 222         |
| <b>Grand Total</b> |     | <b>1309</b> | <b>1099</b> | <b>1017</b> | <b>1151</b> | <b>1044</b> | <b>1009</b> | <b>5955</b> |

### Step 3: Dispensing data feasibility

The data are also scrutinised to check that the quantities of antimicrobials dispensed are feasible. If a member of the NAUSP team is suspicious that a quantity is erroneous they will contact the NAUSP user at the hospital involved.

| Product description (name, strength, form, qty)          | Jan | Feb  | Mar | Apr  | May  | Jun  | Grand Total |      |
|--|-----|------|-----|------|------|------|-------------|------|
| ABACAVIR 300mg TABLETS (60)                              |     | 0    |     |      |      |      | 0           |      |
| ACICLOVIR 200mg TABLETS (90)                             |     | 0    | 90  | 90   | 180  | -180 | 180         | 360  |
| ACICLOVIR 250mg/10mL INJECTION (5)                       |     | 275  | 365 | 185  | 185  | 85   | 260         | 1355 |
| ACICLOVIR 5% (5g) CREAM (1)                              |     | 5    | 3   |      | 4    | 2    | 2           | 16   |
| ACICLOVIR 500mg/20mL INJECTION (5)                       |     | 110  | -30 | 20   | 55   | -10  | 30          | 175  |
| ACICLOVIR 800mg TABLETS (35)                             |     | 35   |     |      |      |      |             | 35   |
| AMOXICILLIN-CLAVULANIC ACID 1g-200mg INJECTION (10)      |     | 331  | 440 | 440  | 5750 |      |             | 7421 |
| AMOXYCILLIN 1g TABLETS (14)                              |     |      | 40  | 1    | 2    |      | 2           | 45   |
| AMOXYCILLIN 250mg CAPSULES (20)                          |     | 60   | 0   | 80   | 0    | 20   |             | 160  |
| AMOXYCILLIN 250mg/5mL (100mL) SUSPENSION (1)             |     |      |     | 2    | 2    | 100  |             | 104  |
| AMOXYCILLIN 500mg CAPSULES (20)                          |     | 1000 | 580 | 1442 | 1560 | 1134 |             | 6516 |
| AMOXYCILLIN-CLAVULANIC ACID 400mg-57mg/5mL (60mL)        |     | 6    | 2   | 8    | 13   | 6    | 2           | 37   |
| AMOXYCILLIN-CLAVULANIC ACID 500mg-125mg TABLETS (10)     |     | 70   | 63  | 30   | 20   | 50   | 50          | 283  |
| AMOXYCILLIN-CLAVULANIC ACID 875mg-125mg TABLETS (10)     |     | 1260 | 614 | 610  | 930  | 850  | 710         | 4974 |
| AMPHOTERICIN (Liposomal) 50mg INJECTION (1)              |     | 587  | 47  | 75   | 6    | 28   | 14          | 757  |
| AMPHOTERICIN 10mg LOZENGES (20)                          |     | 60   |     | 160  | 20   | 140  | 20          | 400  |
| AMPHOTERICIN B [ADDITIVE] (Liposomal) 50mg INJECTION (1) |     |      |     |      |      |      | 14          | 14   |
| AMPICILLIN 1g INJECTION (5)                              |     | 750  | 280 | 305  | 495  | 350  | 465         | 2645 |
| AMPICILLIN 500mg INJECTION (10)                          |     | 20   |     | 20   | 20   |      |             | 60   |
| ANIDULAFUNGIN 100mg INJECTION (1)                        |     | 32   | 28  | 34   |      | 20   | 15          | 129  |

For example if we identify a quantity that is an order of magnitude less or more than other months (see quantity highlighted above) the NAUSP team will alert the relevant NAUSP user.

The NAUSP team also checks that antifungals, antivirals and topical antimicrobials are included in data submissions (as well as antibacterials).

## How data anomalies are resolved

NAUSP will communicate directly with contributors in all cases where data appears to be incorrect or missing. If discrepancies are found, the NAUSP team works with contributors to resolve any errors and update the information in the Portal prior to reporting.

The Australian Commission on Safety and Quality in Health Care provides funding for the development and coordination of NAUSP, analysis of data, and the production of related reports for the AURA Surveillance System. NAUSP is conducted by the Infection Control Service, Communicable Disease Control Branch, Department for Health and Wellbeing, South Australia.

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## For more information

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