

# BSAC OPAT National Outcomes Registry (NORS)



## Data Input Fields

Concise user guide for OPAT centres NOT using the  
BSAC Patient Management System



The British Society for  
Antimicrobial Chemotherapy



OPAT Registry

# BSAC OPAT REGISTRY DATA INPUT FIELDS

This provides a brief guide to the BSAC data entry fields required for quarterly submission of data to NORS.

**This document is intended for users at OPAT centres NOT using the BSAC Patient Management System for direct upload of OPAT data into NORS.**

Manual upload of data into NORS is required for centres which do not have the BSAC OPAT Patient Management System. Please follow instructions for uploading data into NORS in section 1.6.4 of the NORS user guide (you can download the NORS user guide via the “**Information**” tab on your OPAT centre’s homepage at: [opatregistry.com](http://opatregistry.com)).

**NOTE: Entry of some data is mandatory and marked with an asterisk \*. All other data entry is optional.**

Please refer to Table 1 and section 1.6.2 of the NORS user guide for more detailed information regarding mandatory data entry. You can download the NORS user guide via the “**Information**” tab on your OPAT centre’s homepage at: [opatregistry.com](http://opatregistry.com).

## BSAC DATA ENTRY FIELDS FOR NORS:

- **General Information (all mandatory\*)**
  - Consultant / nurses / pharmacy time (as hours per week)
  - Number of patients discharged
  - Number of episodes discharged
  - Number of treatment days saved
- **Primary Infective Diagnoses (PID) & Referring Speciality**
  - PID by patient episode and treatment days (**mandatory\***)
  - Referring Speciality by patient episode and treatment days (optional)
- **OPAT Delivery** (optional)
- **Anti-infectives** (optional)
  - Anti-infectives median days of therapy (optional)
  - Anti-infectives by PID & episodes (**mandatory\***)
- **Adverse Reactions**
  - Total number of line events / total number of adverse events (**mandatory\***)
  - Line or Drug reactions (optional)
- **OPAT Outcomes**
  - Patient outcome by PID (**mandatory\***)
  - OPAT outcome by PID (**mandatory\***)
  - Patient outcome by referring speciality (**mandatory\***)
  - OPAT outcome by referring speciality (**mandatory\***)
- Questionnaire Answers (optional)

## QUARTERLY DATA SUBMISSION SECTION

Clicking on “Overview” in the “Data Entry” window of the “Quarterly Data Submission” page for your OPAT centre gives a summary of all data entered into NORS from your OPAT centre. This appears under the heading “Quarterly Data Overview” (Figure 1).

The screenshot shows the NORS Quarterly Data Submission interface. At the top, there are logos for BSAC (The British Society for Antimicrobial Chemotherapy) and NORS. A navigation bar contains links for Home, Centre Admin, Contact, Help, and Logout. The main content area is titled "Quarterly Data Submission" and includes instructions for data entry. A sidebar on the right, titled "Data Entry", shows a "Select from:" menu with options: Overview, General Information, Primary Infective Diagnoses & Referring Speciality, OPAT Delivery, Anti-infectives, Adverse Reactions, Outcomes, and Questionnaire Answers. A red arrow points from the "Data Entry" sidebar to the "Quarterly Data Overview" button. Below the button, the "General Information" section is displayed as a table with the following data:

Consultant time (hours per week)	0 hours
Nurses time (hours per week)	0 hours
Pharmacy time (hours per week)	0 hours
Patients discharged	0
Episodes discharged	0
Treatment days saved	0 days

Other sections shown include "Primary Infective Diagnoses" (No primary infective diagnoses), "Referring Specialities" (No referring specialities), and "OPAT Deliveries" (No OPAT deliveries).

**FIGURE 1** NORS DATA ENTRY FIELDS / QUARTERLY DATA OVERVIEW

## GENERAL INFORMATION SECTION

Data entry into this section is **mandatory**. The information collected in this section captures the clinical time dedicated to the OPAT service, the number of patients discharged from the service, the number of patients episodes discharged from the service and the number of treatment days saved (Figure 2).

**NOTE:** Only data for patients who have been **discharged** from your OPAT service should be entered into NORS.

Clinical time is measured as the number of hours dedicated by medical staff per week i.e. Consultants, nurses, pharmacy time.

NORS is designed to automatically check all data entered into this section, ensuring this matches data entered elsewhere in the system i.e. the total number of patients & episodes discharged, the number of treatment days saved etc.

## Quarterly Data Submission

Welcome to the quarterly data manual submission section. The data entry sections are available by clicking the tab "SECTIONS" on the right hand side.

To get started please select "general information" from the sections tab on the right and follow the prompts.

Only some of the data is mandatory and is marked with an asterisk \*. All other data is optional.

Once you have completed the data entry by moving through the sections on the right go back to the OVERVIEW, scroll down to the bottom of this page and tick the boxes to confirm that optional data is not being included and then click SUBMIT.

Once data is submitted to the registry, any changes will need to be requested via the contact us link at the top of the registry website. This is to maintain data integrity of the registry and for no other purpose.

Please only include patients who have been discharged from the OPAT service during the time period of the report.

### General Information

\* = mandatory

Consultant time (hours per week): \*

Nurses time (hours per week): \*

Pharmacy time (hours per week): \*

Patients discharged: \*

Episodes discharged: \*

Treatment days saved: \*

  
  
  
  
  


Save

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SHOW / HIDE SECTIONS

FIGURE 2 GENERAL INFORMATION

## PRIMARY INFECTIVE DIAGNOSES & REFERRING SPECIALITY SECTION

The information collected in this section captures data on both the primary infective diagnoses (PID) and referring speciality of patients on your OPAT service (Figures 3&4).

It is **mandatory** to enter the number of patient episodes and the number of treatment days for each primary infective diagnosis (Figure 3).

Entering data for each referring speciality is optimal for overall review of OPAT outcomes but is not mandatory.

A complete list of PIDs and referring specialities can be found in [Appendix 1](#) of this document and in the NORS user guide at: [opatregistry.com](http://opatregistry.com).

## Primary Infective Diagnoses by Patient Episode and Treatment Days

\* = mandatory

Primary Infective Diagnosis	Episodes *	Treatment Days *	
Actinomycosis	<input type="text"/>	<input type="text"/>	<input type="button" value="Delete"/>
			<input type="button" value="Add Row"/>

## Referring Speciality by Patient Episode and Treatment Days

Referring Speciality	Episodes	Treatment Days	
Cardiology	<input type="text"/>	<input type="text"/>	<input type="button" value="Delete"/>
			<input type="button" value="Add Row"/>
			<input type="button" value="Save"/>

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**FIGURE 3 PRIMARY INFECTIVE DIAGNOSES & REFERRING SPECIALITY**

### Primary Infective Diagnoses

Diagnosis	Episodes	Treatment Days
Candidiasis	1	5
Congenital CMV	1	5
Urinary tract infection	1	5

### Referring Specialities

Speciality	Episodes	Treatment Days
Obstetrics / Gynaecology	1	5
OPAT Centre referral from another organisation	1	5
Urological surgery	1	5

**FIGURE 4 EXAMPLE OF DATA ENTRY FOR PRIMARY INFECTIVE DIAGNOSES & REFERRING SPECIALITY**

## OPAT DELIVERY MODELS

The information collected in this section captures data on the models of OPAT that form your OPAT service.

Models include:

- Family/Carer
- Community Nurse (NHS)
- Community Nurse (non-NHS)
- General Practitioner
- OPAT Clinic
- Other (free text)
- Local hospital day unit

**Entering data for each referring speciality is optional, not mandatory.**

When completing this section please enter the number of days your OPAT service has been delivered by each model (Figure 5).

### OPAT Delivery

Description	Number of Days	
Family / Carer	<input type="text"/>	<input type="button" value="Delete"/>
		<input type="button" value="Add Row"/>
<input type="button" value="Save"/>		

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**FIGURE 5** OPAT DELIVERY MODELS

## ANTI-INFECTIVES SECTION

The information collected in this section captures data on the anti-infective drugs that you use as part of your OPAT service.

**Entering data in this section is mandatory.**

Anti-infectives - this section captures the number of patient episodes and treatment days per anti-infective drug prescribed, plus the route drugs were delivered (Figure 6). **Entering data in this section is optional, not mandatory.**

### Anti-infectives

Drug	Route	Episodes	Days	
- Please select -	IM	<input type="text"/>	<input type="text"/>	<input type="button" value="Delete"/>
				<input type="button" value="Add Row"/>

**FIGURE 6** ANTI-INFECTIVES

Anti-infectives Median Days of Therapy - this section captures the average (median) number of days into therapy that the patient was prescribed the anti- infective (Figure 7). The term “median days of therapy” refers to the average of the number of days a patient is on a particular therapy. The median is the numerical value separating the higher half of a data sample (days of therapy) from the lower half i.e. the middle /average value.

There is the ability to add as many anti-infective drugs as you require by adding rows.

**NOTE:** this data is only capturing days on anti-infective drugs as part of the OPAT service, it is not to record inpatient use.

Entering data in this section is optimal, not mandatory.

The term 'median days of therapy' refers to the average of the number of days a patient is on a particular therapy. The median is the numerical value separating the higher half of a data sample (days of therapy) from the lower half, i.e. the middle value.

### Anti-infectives Median Days of Therapy

Drug	Median Days of Therapy
- Please select -	<input type="text"/>

Buttons: Delete, Add Row

FIGURE 7 ANTI-INFECTIVES MEDIAN DAYS OF THERAPY

Anti-infectives by PID & Episodes - this section captures the number of patient episodes per anti-infective drug prescribed for each primary infective diagnosis (Figure 8).

Entering data is mandatory.

### Anti-infectives by PID & Episodes

\* = mandatory

Drug	PID	Episodes *
- Please select -	Actinomycosis	<input type="text"/>

Buttons: Delete, Add Row, Save

FIGURE 8 ANTI-INFECTIVES MEDIAN DAYS OF THERAPY

## ADVERSE REACTIONS SECTION

This section captures data on the adverse reactions experienced by patients whilst receiving treatment on your OPAT service (Figure 9).

Entering data is **mandatory** for 1) the total number of line reactions and 2) total adverse events.

Please enter the information:

- Number of line related adverse events
- Total number of adverse events
- If you have no adverse events to report please enter "zero" into each box and press "Save" to continue.

Using the drop down menus please add information for each line reaction and each drug reaction using the relevant buttons "Add Line reaction" / "Add Drug reaction" as follows:

### Number of line related adverse events

- Cause (Butterfly, Hickman, Intramuscular, Midline, Other, Peripheral cannula or PICC)
- Description of line related adverse event (i.e. Allergy to dressing, Fractured line etc.)
- Number of reactions experienced
- Number of days into therapy the event occurred

### Number of drug related adverse events

- Cause (select the name of the drug which caused the adverse event from the drop down menu)
- Description of adverse event (i.e. Anaphylaxis, Diarrhoea etc.)
- Number of reactions experienced
- Number of days into therapy the reaction occurred

## Adverse Reactions

If you have no Adverse events reported for this quarter please enter 0 in each box and press SAVE to continue.

\* = mandatory

Line events total *	Adverse events total *
<input type="text"/>	<input type="text"/>

  

Cause	Description	Number	Days into therapy
<input type="text"/>		<input type="text"/>	<input type="text"/>
<input type="text"/>		<input type="text"/>	<input type="text"/>

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FIGURE 9 ADVERSE REACTIONS



## OUTCOMES SECTION

This captures data on all OPAT and patient outcomes completed within the relevant quarters a result of your OPAT service.

Entering data in this section is **mandatory**.

Enter the number of patients per “**Patient Outcome**” and “**OPAT Outcome**” per primary infective diagnosis (Figure 10) and referring speciality (Figure 11). The outcomes criteria for NORS can be found in [Appendix 1](#) of this document.

### Patient Outcome by Primary Infective Diagnosis

\* = mandatory

PID	Cured *	Improved *	Failure *
Actinomycesis	<input type="text"/>	<input type="text"/>	<input type="text"/>

### OPAT Outcome by Primary Infective Diagnosis

\* = mandatory

PID	Success *	Partial Success *	Failure of OPAT *	Indeterminate *
Actinomycesis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

FIGURE 10 PATIENT AND OPAT OUTCOME BY PRIMARY INFECTIVE DIAGNOSIS

### Patient Outcome by Referring Speciality

\* = mandatory

Speciality	Cured *	Improved *	Failure *
Cardiology	<input type="text"/>	<input type="text"/>	<input type="text"/>

### OPAT Outcome by Referring Speciality

\* = mandatory

Speciality	Success *	Partial Success *	Failure of OPAT *	Indeterminate *
Cardiology	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Save

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FIGURE 11 PATIENT AND OPAT OUTCOME BY REFERRING SPECIALITY

## QUESTIONNAIRE ANSWERS SECTION

This section captures feedback from your OPAT patients relating to your OPAT service (Figure 12).

Please complete the total number of responses for each question (and relating to the quarter for which you are submitting data). Click "Save" to save the data.

Entering data in this section is optimal, not mandatory.

### Questionnaire Answers

Input Guide	
Total Patients discharged:	0
Total Episodes discharged:	0
Total Treatment days saved:	0 days

For each of the questions below please input the total number of responses received per option.

**(1) How do you rate the information provided to you about OPAT prior to your discharge from hospital**

Excellent	<input type="text"/>
Good	<input type="text"/>
Satisfactory	<input type="text"/>
Poor	<input type="text"/>
Very poor	<input type="text"/>
N/A	<input type="text"/>

**(2) Which of the statements reflects your opinion of the OPAT service received from hospital staff**

Exceeded my expectations	<input type="text"/>
Met my expectations	<input type="text"/>
No opinion	<input type="text"/>
Failed to meet my expectations	<input type="text"/>
Failed totally	<input type="text"/>
N/A	<input type="text"/>

**(3a) How do you rate the support provided by the OPAT hospital team**

Excellent	<input type="text"/>
Good	<input type="text"/>
Satisfactory	<input type="text"/>
Poor	<input type="text"/>
Very poor	<input type="text"/>
N/A	<input type="text"/>

FIGURE 12 QUESTIONNAIRE ANSWERS SECTION

## APPENDIX 1

### COMPLETE LISTS OF BSAC OPAT FIELDS FOR NORS DATA ENTRY

General Information
Consultant time (hours per week)
Nurses time (hours per week)
Pharmacy time (hours per week)
Number of patients discharged
Number of episodes discharged
Number of treatment days saved

Primary Infective Diagnoses		
Actinomycosis	Hepatic abscess	Pneumonia - Community Acquired
Appendicitis	Infected cranioplasty	Pneumonia - Hospital Acquired
Aspergillosis	Infected Intracerebral stimulators	Prosthetic joint - knee
Bacteraemia	Infected pacing box	Prosthetic joint - other
Bacterial meningitis	Intraabdominal abscess	Prosthetic joint- hip
Bronchiectasis	Late onset sepsis	Psoas Abscess
Candidiasis	Line related infection - systemic	Pyrexial of unknown origin
Carotid patch infection	Lyme	Respiratory tract infection - other
Cellulitis	Lyme (Neuro)	Salmonella
Cerebral abscess	Lymph node abscess	Scalded skin syndrome
Cholangitis	Lymphadenitis	Septic arthritis
Congenital CMV	MAI (Non-tuberculous mycobacteria)	sinusitis
Congenital syphilis	Malignant otitis externa	Skin and soft tissue infection
Cystic fibrosis - infective episode	Mastoiditis	Syphilis
Cytomegalovirus	Neonatal HSV	Syphilis (Neuro)
Diabetic foot infection (no osteomyelitis)	Nocardiosis	Tonsillitis
Discitis/vertebral osteomyelitis - metalwork	Orbital cellulitis	Toxic shock syndrome
Discitis/vertebral osteomyelitis -no metalwork	Osteomyelitis - diabetic foot	Tuberculosis
Early onset sepsis	Osteomyelitis - non surgical	Urinary tract infection
Empyema	Osteomyelitis - surgically related	Vascular graft infection
Encephalitis	Other - Free text	Viral infection
Endocarditis	Otitis media	VP Shunt Infection
Epidural abscess	Pelvic Abscess	Wound Infection - post surgical
Fever in early infancy	Periorbital cellulitis	

Referring Speciality
Cardiology
Cardiothoracic Surgery
Care of the Elderly
Critical Care
Dermatology
Emergency Department
Endocrine/Diabetes
ENT & Head and neck surgery
Gastroenterology
General and Acute Medicine
General paediatrics
General Surgery
Haematology
Hepatobiliary
HIV & GUM
Immunology
Infectious Diseases
Maxillo facial surgery & dentistry
Microbiology
Neurology
Neurosurgery
Obstetrics & Gynaecology
Oncology/Palliative Care
OPAT Centre referral from another organisation
Ophthalmology
Orthopaedics & Trauma
Other
Paediatric Surgery
Plastic Surgery
Primary Care
Renal medicine and transplantation
Respiratory Medicine
Rheumatology
Urological surgery
Vascular Surgery

OPAT Delivery
Family/Carer
Community Nurse (NHS)
Community Nurse (non-NHS)
General Practitioner
OPAT Clinic
Other (free text)
Local hospital day unit

Anti-infective Drugs List	
Aciclovir	Gentamicin
Amikacin	Imipenem
Amoxicillin	Isoniazid
Amphotericin	Levofloxacin
Anidulafungin	Linezolid
Aztreonam	Meropenem
Beta Lactam	Metronidazole
Capreomycin	Micafungin
Caspofungin	Moxifloxacin
Cefotaxime	Mupirocin
Ceftaroline	No allergies
Ceftazidime	Ofloxacin
Ceftriaxone	Other - Free Text
Cefuroxime	Penicillin
Ciprofloxacin	Piperacillin/Tazobactam
Clarithromycin	Pivmecillinam
Clindamycin	Posaconazole
Co-amoxiclav	Prothionamide
Colistin	Rifabutin
Cotrimoxazole	Rifampicin
Cycloserine	Streptomycin
Daptomycin	Teicoplanin
Doripenem	Televancin
Doxycycline	Temocillin
Ertapenem	Tetracycline
Erythromycin	Tigcycline
Ethambutol	Tobramycin
Flucloxacillin	Trimethoprim
Fluconazole	Vancomycin
Flucytosine	Voriconazole
Fusidic Acid	

Drug Delivery Route
IM
IV
PO

Line Related Adverse Reactions		Drug Related Adverse Reactions	
Cause	Description	Description	
Butterfly	Allergy to dressing	Anaphylaxis	Rash - generalised
Hickman	Fractured line	Diarrhoea (antibiotic induced)	Rash - local
Intramuscular	Infection - bacteraemia	Diarrhoea (C Difficile)	Thrombocytopenia
Midline	Infection - local	Drug Induced Fever	Urticaria
Other	Infection - phlebitis	Eosinophilia	Rash - generalised
	Line migration	Hepatitis	
	Line occlusion	Leukopenia	
	Line tampered by patient	Nausea/ Vomiting	
	Other - free text	Nephrotoxicity	
	Pneumothorax	Neutropenia	
	Sterile phlebitis	Other - Free text	
	Thrombus	Pancytopenia	

## OPAT Outcomes Criteria

Patient Outcome	
<b>Cure</b>	Completed OPAT therapy +/- oral step down for defined duration with resolution of infection and no requirement for long term antibiotic therapy (usually relates to less severe infections eg SSTI).
<b>Improved</b>	i. Complete OPAT therapy +/- oral step down with partial resolution of infection but need for further follow up OR ii. Completed OPAT therapy but required escalation of antimicrobial therapy during OPAT (without admission) +/- oral step down with ultimate cure or partial improvement (as above).
<b>Failure</b>	Progression or non-response of infection despite OPAT, required admission, surgical intervention or died for any reason

OPAT Outcome	
<b>Success</b>	Completed therapy in OPAT with no change in antimicrobial agent, no adverse events, cure or improvement of infection and no readmission
<b>Partial Success</b>	Completed therapy in OPAT with either change in antimicrobial agent or adverse event not requiring admission
<b>Failure of OPAT</b>	Readmitted due to infection worsening or due to adverse event. Death due to any cause during OPAT
<b>Intermediate Outcome</b>	Readmission due to unrelated event e.g. chest pain