



The British Society for
Antimicrobial Chemotherapy



OPAT
Outpatient Parenteral
Antimicrobial Therapy

Recording OPAT Treatment Episodes and Outcomes – Review of the UK Patient Management System and UK Outcomes Registry

Mark Gilchrist

BSAC UK OPAT Initiative 2013

UK Patient Management System Update & Introducing UK OPAT Outcomes Registry

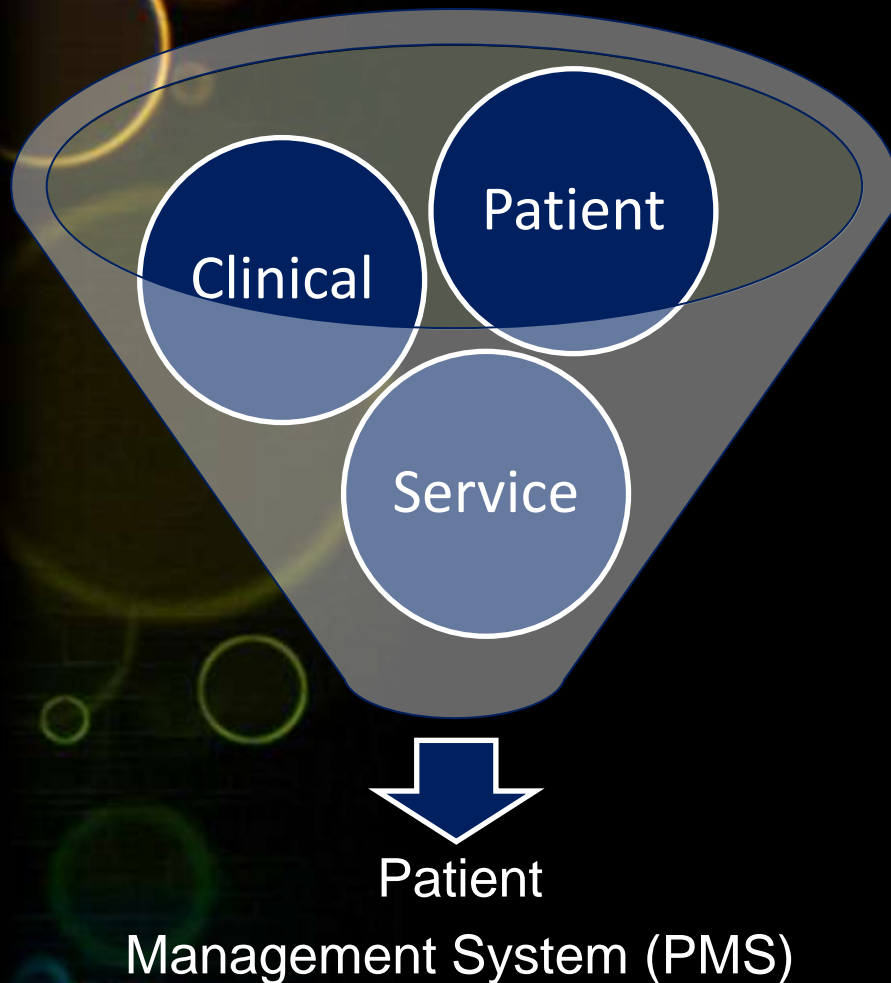
Mark Gilchrist

On behalf of the BSAC OPAT PMS & Registry workstream

Matt Laundry, Carolyn Hemsley, Sanjay Patel

June 2013

UK Patient Management System



Focussed on ensuring that the PMS has accurate reporting of the OPAT process and outcome measures



Both management and the OPAT team need such reports to guide the service

UK Patient Management System

Pre admissions

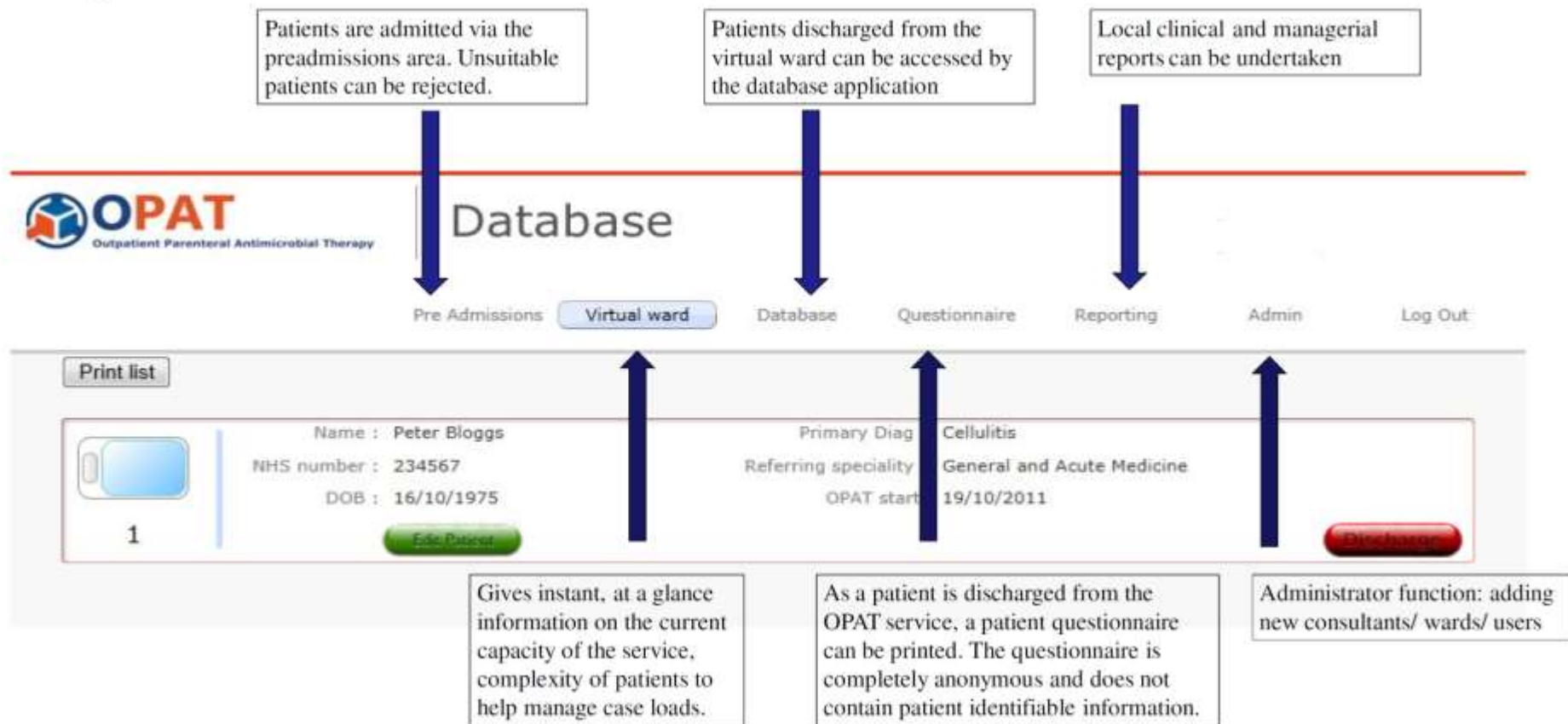
Virtual Ward

Database

Questionnaire

Reporting

Components of the Patient Management System



UK Patient Management System

- Period: May 2012 – May 2013
- Installed
 - 16 OPAT centres
- Pending installations (contracts received)
 - 1 OPAT centres
- Pending installation (OPAT lead approval/ awaiting IT approval)
 - 24 OPAT centres

UK Patient Management System

- What have we learnt from the 16 centres?
 - Smooth implementation in centres
 - Very few technical issues
 - Mostly user issues
 - Initial feedback on benefits of system very positive
 - Users willing to send in suggestions for future development

Look/Feel

Technical

Process

UK Patient Management System

- Already sent those 16 centres upgrades around:
 - Difficulty creating / downloading reports,
 - Issues saving patient episode data,
 - Inability to confirm new patient episodes for existing patients in particular conditions,
 - Inability to add new patients cannot after December 2012,
 - System now accepts patients with a date of birth prior to 1930.

UK Patient Management System V2

- V2 will address
 - Individual trust reports on patient level data
 - Inclusion of additional data fields relevant to clinical practice
 - Additional functionality to enhance usability
 - Potential deployment on N3 server
- NB: V2 cannot change existing fields only add to them
- V2 is hoped to be released November 2013

UK Patient Management System - Paediatric

- Same design as the existing system
- Similar data fields – adapted for paediatric use
- Will contain recommendations from the paediatric GPR's
- Currently being trialled in Southampton Childrens Hospital

UK Patient Management System

- For more information, visit www.e-opat.com
- Demonstration video on You Tube

The screenshot displays a YouTube video player interface. At the top, the YouTube logo and search bar are visible. The video title is "OPAT Patient Management System" by the channel "pharmamixvideo", which has 175 views. The video content shows a web application interface for the OPAT system. The interface includes a header with the OPAT logo and a "Database" section. Below the header, there is a table with three patient records, each with a "Print" button and a "Delete" button.

Print	Name	MRN Number	DOB	Primary Care	Referring Specialty	Referring Hospital
1	John Smith	1234567	10/10/1975	Internal Medicine	Internal Medicine	St. Mary's Hospital
2	Jane Doe	7890123	05/15/1980	Internal Medicine	Internal Medicine	St. Mary's Hospital
3	John Smith	1234567	10/10/1975	Internal Medicine	Internal Medicine	St. Mary's Hospital

UK OPAT Outcomes Registry



The British Society for
Antimicrobial Chemotherapy



OPAT Registry

BSAC - Supporting the clinical need for OPAT



Log in to access detailed reports and
upload your quarterly data.

The OPAT National Outcomes Registry has been designed to produce real time data on OPAT services across the country, allowing valuable knowledge and experiences to be shared and in doing so enabling the OPAT UK landscape to be shaped.

Users are able to submit anonymised OPAT data to the Registry, from whichever patient management system they are using, on a quarterly basis. Ownership of the data will remain with the local OPAT service.



Email:

Password:

Remember: ☐

Login

[Click here to register >](#)

Registration

Please enter your details

Choose your centre:

Aberdeen Royal Infirmary

If your centre is not listed [click here](#).

These are your login credentials. Please use your NHS email address.

Email:

Password:

Confirm:

First Name:

Last Name:

To request the addition of a new centre
fill out the details below and submit
them to BSAC for approval:

Centre

Name:

OPAT lead:

Contact:

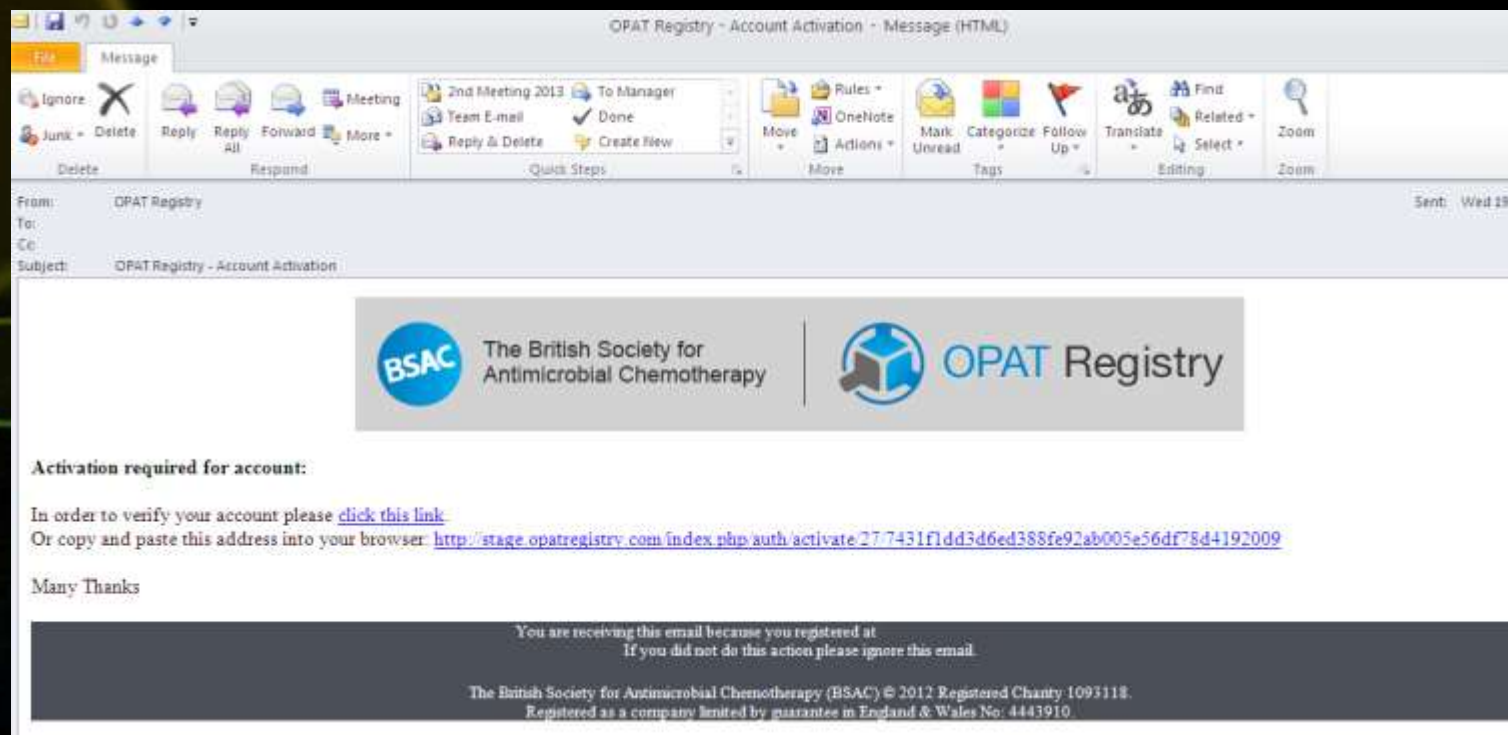
Region:

London

Registration

NHS email address to register

NHS.UK or NHS.NET



Disclaimer

Use of the registry implies that you have read and agree with our [disclaimer](#). If you have not read the disclaimer please [read it now](#) and check the box to indicate you agree.

You can access the disclaimer at any point through the link in the footer of the website.

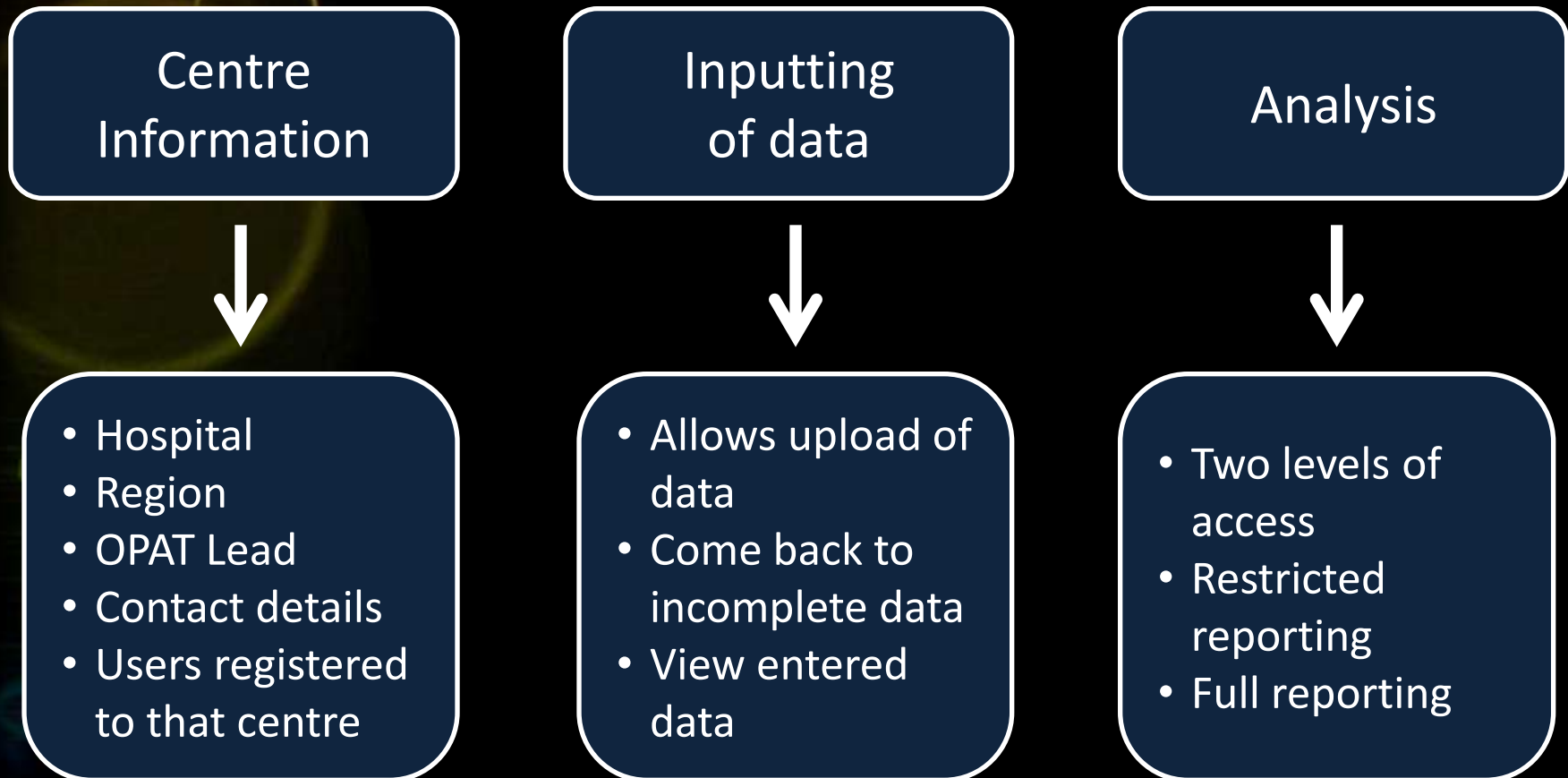
☐ I have read and agree to the disclaimer.

Register >

- Registration
- Viewing data
- Data entry
- Ownership of registry and submitted data
- Publication of data
- Terms & Conditions

Registry

- Divided into three distinct sections



Registry – Inputting of data

Input Quarterly Data

For data integrity purposes please only upload data using the following 'quarterly' definitions;

Q1: January, February, March

Q2: April, May, June

Q3: July, August, September

Q4: October, November, December

Start New Form

There are two ways you can upload your quarterly data.

If you **do not** have the BSAC OPAT Patient Management System or you wish to manually upload data go to option A.

If you **have** the BSAC OPAT Patient Management System then you have the option to automatically upload the "Core Data CSV file" to BSAC who will input the data on your behalf. Please go to option B.

Option A: Input Manually

Quarter

Q1 ▼

Year

2013 ▼

Start

Option B: Upload CSV

Choose file:

Browse...

Upload

Quarterly Data Incomplete

You have started 1 quarterly data input as indicated below. Please note these quarters have not been submitted to the registry.

2013

Q3

Data Successfully Submitted to the Registry

You have finished and submitted 12 quarters of OPAT data. To view your submitted data please click on the relevant quarter below.

2010

Q1 Q3

2011

Q1 Q2 Q4

2012

Q1 Q2 Q3 Q4

2013

Q1 Q2

Registry – Manual Input of data

OPAT Registry Input Fields

Click [here](#) to view and download the complete list of input fields required to submit quarterly OPAT data.



 Data Input Fields



The British Society for
Antimicrobial Chemotherapy



OPAT Registry

Registry – Manual Input of data

Data Entry

For Q3 of 2013

Select from:

Overview

- General Information
- Primary Infective Diagnoses & Referring Speciality
- OPAT Delivery
- Anti-infectives
- Adverse Reactions
- Outcomes
- Questionnaire Answers

General Information

Consultant time (hours per week):	2
Nurses time (hours per week):	37
Pharmacy time (hours per week):	2
Patients discharged:	30
Episodes discharged:	32
Treatment days saved:	250

Registry – Manual Input of data

Data Entry

For Q3 of 2013

Select from:

Overview

- General Information
- Primary Infective Diagnoses & Referring Speciality
- OPAT Delivery
- Anti-infectives
- Adverse Reactions
- Outcomes
- Questionnaire Answers

Primary Infective Diagnoses by Patient Episode and Treatment Days

Input Guide

Total Patients discharged: 30

Total Episodes discharged: 32

Total Treatment days saved: 250 days

Primary Infective Diagnosis

Actinomyces

Episodes

Treatment Days

Delete

Add Row

Referring Speciality by Patient Episode and Treatment Days

Referring Speciality

Cardiology

Episodes

Treatment Days

Delete

Add Row

Registry – Manual Input of data

Data Entry

For Q3 of 2013

Select from:

Overview

- General Information
- Primary Infective Diagnoses & Referring Speciality
- OPAT Delivery
- Anti-infectives
- Adverse Reactions
- Outcomes
- Questionnaire Answers

OPAT Delivery

Input Guide

Total Patients discharged: 30
Total Episodes discharged: 32
Total Treatment days saved: 250 days

Description

Carer

Number of Days

Delete

Add Row

Registry – Manual Input of data

Data Entry

For Q3 of 2013

Select from:

Overview

- General Information
- Primary Infective Diagnoses & Referring Speciality
- OPAT Delivery
- Anti-infectives
- Adverse Reactions
- Outcomes
- Questionnaire Answers

Anti-infectives

Input Guide

Total Patients discharged: 30

Total Episodes discharged: 32

Total Treatment days saved: 250 days

Drug

Aciclovir

Route

IM

Episodes

Days

Delete

Add Row

Anti-infectives by PID & Episodes

Drug

Aciclovir

PID

Actinomycosis

Episodes

Delete

Add Row

Registry – Manual Input of data

Data Entry

For Q3 of 2013

Select from:

Overview

- General Information
- Primary Infective Diagnoses & Referring Speciality
- OPAT Delivery
- Anti-infectives
- Adverse Reactions
- Outcomes
- Questionnaire Answers

Adverse Reactions

Input Guide

Total Patients discharged: 30
Total Episodes discharged: 32
Total Treatment days saved: 250 days

If you have no Adverse events reported for this quarter, please press SAVE to continue.

Cause	Description	Number	Days into therapy
-------	-------------	--------	-------------------

Add Line reaction

Add Drug reaction

If you have no Adverse events reported for this quarter, please press SAVE to continue.

Cause	Description	Number	Days into therapy
-------	-------------	--------	-------------------

Butterfly



Allergy to Dressing



Delete

Aciclovir



Anaphylaxis



Delete

Add Line reaction

Add Drug reaction

Registry – Manual Input of data

Data Entry

For Q3 of 2013

Select from:

Overview

- General Information
- Primary Infective Diagnoses & Referring Speciality
- OPAT Delivery
- Anti-infectives
- Adverse Reactions
- Outcomes
- Questionnaire Answers

Patient Outcome by Primary Infective Diagnosis

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

OPAT Outcome by Primary Infective Diagnosis

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

Patient Outcome by Referring Speciality

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

OPAT Outcome by Referring Speciality

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

Registry – Manual Input of data

Quarterly Data Overview

General Information

Consultant time (hours per week):

Nurses time (hours per week):

Pharmacy time (hours per week):

Patients discharged:

Episodes discharged:

Treatment days saved:

Primary Infective Diagnoses

- The total episodes in this section (0) do not equal the "Episodes" "General Information" section (32).
- The total treatment days in this section (0) do not equal the "Treatment days saved" "General Information" section (250).

No primary infective diagnoses

Submit and Finish

Please make sure that all the data is valid and that you have input all sections before submitting.

It appears you have not submitted data for the following sections of the form. If you do not have any data to enter for these sections please check the boxes below to confirm you are happy to submit the form without this data. Please remember that once you have submitted the form you will be unable to manually update the data without first contacting BSAC.

- ☐ I do not have data for "Primary Infective Diagnoses"
- ☐ I do not have data for "Referring Specialities"
- ☐ I do not have data for "OPAT Deliveries"
- ☐ I do not have data for "Anti-infectives"
- ☐ I do not have data for "Adverse Reactions"
- ☐ I do not have data for "Anti-infectives Median Day into Therapy"
- ☐ I do not have data for "Anti-infectives by PID and Episodes"
- ☐ I do not have data for "Patient Outcomes by PID"
- ☐ I do not have data for "OPAT Outcomes by PID"
- ☐ I do not have data for "Patient Outcomes by Referring Speciality"
- ☐ I do not have data for "OPAT Outcomes by Referring Speciality"
- ☐ I confirm that I have read the [disclaimer](#) and agree to the terms and conditions.

There are errors which need to be corrected before you can submit this form. Please scroll back up and correct them.

Registry - Reporting

Restricted Reports

Your centre currently has access to restricted registry reports. These reports give top level data on OPAT centres within your region. You may also compare this to another region.

If you wish to have access to more detailed registry information, you should submit OPAT data for the last quarter from your centre to gain access to the full reports.

Please select which type of report and which region you would like to compare your regional OPAT data to using the boxes below.

Report

Region 1

Region 2

From Quarter & Year

Quarter

Year

To Quarter & Year

Quarter

Year

Build Report

Full Reports

Your centre currently has access to full registry reports. This enables you to compare your centre with other specific centres or to an entire region.

Please select which type of report and which centre or region you would like to compare your OPAT data to using the boxes below.

Report

Compare

To

From
Quarter

Year

To
Quarter

Year

Build Report

Restricted Reports

Restricted Reports

Your centre currently has access to restricted registry reports. These reports give top level data on OPAT centres within your region. You may also compare this to another region.

If you wish to have access to more detailed registry information, you should submit OPAT data for the last quarter from your centre to gain access to the full reports.

Please select which type of report and which region you would like to compare your regional OPAT data to using the boxes below.

Report Overview

Region 1 London

Region 2 West Midlands

From Quarter & Year

Quarter Q1

Year 2013

To Quarter & Year

Quarter Q1

Year 2013

Build Report

Region level only

- Overview
- Referring speciality
- Primary Infective diagnosis
- Anti-infective - by patient episode
- Adverse Event

Viewing Report

Primary Infective
Diagnosis

From: Q1 2013
To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

Anti-infectives

Adverse Events

Export

Export to CSV file
for use in
Microsoft Excel

Treatment Days

Episodes

London		West Midlands	
Name	Treatment Days	Name	Treatment Days
Prosthetic joint - knee	300	Cellulitis	100
Cellulitis	50	Prosthetic joint- hip	45
Hepatic abscess	50	Diabetic foot infection (no osteomyelitis)	30
Bronchiectasis	50	Osteomyelitis - surgically related	25
Endocarditis	50		

Viewing Report

Anti-infectives

From: Q1 2013

To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

Anti-infectives

Adverse Events

Export

Export to CSV file
for use in
Microsoft Excel

Episodes

London		West Midlands	
Name	Episodes	Name	Episodes
Ceftriaxone	17	Ceftriaxone	25
Teicoplanin	9	Teicoplanin	10
Ceftazidime	5	Daptomycin	10
Daptomycin	2		

Full Reports

Full Reports

Your centre currently has access to full registry reports. This enables you to compare your centre with other specific centres or to an entire region.

Please select which type of report and which centre or region you would like to compare your OPAT data to using the boxes below.

Report

Compare

To

From
Quarter

Year

To
Quarter

Year

Build Report

Region + Centre Specific

- Overview
- Referring speciality
- Primary Infective diagnosis
- Anti-infective
- OPAT delivery
- OPAT / Pt outcome
- Adverse Event

Viewing Report

Overview

From: Q1 2013
To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

OPAT Deliveries

Anti-infectives

Number

Centre 3		Centre 38	
Name	Number	Name	Number
Consultant Hours Funded (Per Week)	5	Consultant Hours Funded (Per Week)	6
Episodes Discharged	30	Episodes Discharged	45
Nurse Hours Funded (Per Week)	37	Nurse Hours Funded (Per Week)	20
Patients Discharged	30	Patients Discharged	30
Pharmacy Hours Funded (Per Week)	5	Pharmacy Hours Funded (Per Week)	30
Treatment Days Saved	500	Treatment Days Saved	200

- NB: Anonymised centre information

Viewing Report

Referring
Speciality

From: Q1 2013
To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

OPAT Deliveries

Treatment Days

Episodes

Patient Outcomes

OPAT Outcomes

Centre 3		Centre 38	
Name	Treatment Days	Name	Treatment Days
Orthopaedics/Trauma	300	Care of the Elderly	120
Emergency Department	50	Orthopaedics/Trauma	45
Hepatobiliary	50	General and Acute Medicine	35
Respiratory Medicine	50		
Cardiology	50		

Viewing Report

Referring
Speciality

From: Q1 2013
To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

Treatment Days

Episodes

Patient Outcomes

OPAT Outcomes

Centre 3				Centre 38			
Name	Cured	Improved	Failure	Name	Cured	Improved	Failure
Cardiology	2	0	0	Care of the Elderly	10	5	0
Emergency Department	12	0	0	General and Acute Medicine	10	3	0
Hepatobiliary	2	0	0	Orthopaedics/Trauma	0	2	0
Orthopaedics/Trauma	7	1	1				
Respiratory Medicine	5	0	0				

Viewing Report

Primary Infective
Diagnosis

From: Q1 2013
To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

Treatment Days

Episodes

Patient Outcomes

OPAT Outcomes

Centre 3		Centre 38	
Name	Treatment Days	Name	Treatment Days
Prosthetic joint - knee	300	Cellulitis	100
Cellulitis	50	Prosthetic joint- hip	45
Hepatic abscess	50	Diabetic foot infection (no osteomyelitis)	30
Bronchiectasis	50	Osteomyelitis - surgically related	25
Endocarditis	50		

Viewing Report

OPAT Deliveries

From: Q1 2013

To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

Number of Days

Centre 3		Centre 38	
OPAT Delivery	Number of Days	OPAT Delivery	Number of Days
Community Nurse (NHS)	400	Community Nurse (NHS)	120
OPAT Clinic	60	Community Nurse (Non - NHS)	40
Self/Family	40	Self/Family	40

Viewing Report

Anti-infectives

From: Q1 2013

To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

OPAT Deliveries

Anti-infectives

Treatment Days

Episodes

Route

Median Duration of Therapy

by PID

Centre 3

Name	Treatment Days
Teicoplanin	300
Ceftriaxone	200
Daptomycin	50
Ceftazidime	50

Centre 38

Name	Treatment Days
Ceftriaxone	80
Teicoplanin	60
Daptomycin	60

Viewing Report

Anti-infectives

From: Q1 2013

To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

OPAT Deliveries

Anti-infectives

Treatment Days

Episodes

Route

Median Duration of Therapy

by PID

Select a PID to filter results by:

- All
- All
- Bronchiectasis
- Cellulitis
- Diabetic foot infection (no osteomyelitis)
- Endocarditis
- Prosthetic joint - knee
- Prosthetic joint- hip

Centre 38			
Anti-infective	Episodes	Anti-infective	Episodes
Daptomycin	2	Teicoplanin	10
Ceftazidime	5	Daptomycin	10
Teicoplanin	9	Ceftriaxone	25
Ceftriaxone	17		

Viewing Report

Anti-infectives

From: Q1 2013

To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

OPAT Deliveries

Anti-infectives

Treatment Days

Episodes

Route

Median Duration of Therapy

by PID

Cellulitis

Anti-infectives used in conjunction with Cellulitis as the primary diagnosis

Reset

Centre 3		Centre 38	
Anti-infective	Episodes	Anti-infective	Episodes
Ceftriaxone	12	Teicoplanin	5
		Daptomycin	10
		Ceftriaxone	15

Viewing Report

Adverse Events

From: Q1 2013
To: Q1 2013

Choose Report

Overview

Referring
Speciality

Primary Infective
Diagnosis

OPAT Deliveries

Anti-infectives

Days Into Therapy

Episodes

Line or Drug

Centre 3

Centre 38

Adverse Event	Type	Cause	Days Into Therapy	Adverse Event	Type	Cause	Days Into Therapy
Line occlusion	Line	PICC	25	Nausea/ Vomitting	Drug	Teicoplanin	2
Hepatitis	Drug	Ceftriaxone	10				

Registry – next steps

- Current PMS centre invitations have gone out to uploading data to the registry
- Developing the Paediatric registry
- Finalising document for non PMS centres to upload their quarterly data
- Updated registry will follow in November 2013 once PMS update

Overall – next steps

May 2013

Registry Launch for
PMS users

Paediatric PMS +
Registry development

Invite non PMS users
to add data to the
registry

Feedback Meeting for PMS/ Registry users

Finalise registry v2
design

Finalise PMS v2 design

November 2013

V2 Registry (Adult)

V2 PMS (Adult)

V2 Registry (Paeditric)

V2 PMS (Paediatric)

Summary

- Registry designed to allow sharing of OPAT data
- Establish, build, grow OPAT services
- Paediatric & Adult services
- Focus on key metrics of OPAT service
- Listening to OPAT services – Version 2
- Enable the OPAT UK landscape to be shaped
- Potential to bringing together OPAT centres locally, nationally and internationally

Acknowledgements

- Registry/ PMS Workstream

- Carolyn Hemsley/ Sanjay Patel/
Matthew Laundry

- BSAC

- Tracey Guise & Team

- Pharma-mix

- Terri Martin/ Debbie
Lancaster/ Gurpal Virdee/
Bob Gilkes

- All 16 PMS users

OPAT teams

- Imperial Teams
 - F. Sanderson/ R.Cele
- Sheffield Team
 - A. Chapman
 - A. Omrani (Wales)
- Scotland Teams
 - A. Seaton/
 - D. Nathwani/ J. Morrison
- Pan - London OPAT Teams
 - M. Laundry/ A. Breathnach
 - N. Price/ C. Hemsley
 - S. Hopkins/ P. Smith
 - A. Lessing
 - F. Sanderson