



The British Society for
Antimicrobial Chemotherapy



OPAT
Outpatient Parenteral
Antimicrobial Therapy

BSAC OPAT NATIONAL CONFERENCE 2013





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UK Outpatient Parenteral Antimicrobial Therapy Initiative 2013 National Conference

The ICC Birmingham • 6th June 2013 • 09.00-16.30

Agenda

09.00 **Registration & Coffee**

SESSION ONE: UK Overview, Standards & Outcomes

09.30 **Welcome & Overview**
Mark Gilchrist, Consultant Pharmacist, Imperial College Healthcare NHS Trust
Dr Andrew Seaton, Consultant Physician, Gartnavel General Hospital, Glasgow

09.35 **The UK OPAT Initiative – then, now & in the future, overview of 2013 Audit**
Dr Andrew Seaton, Consultant Physician, Gartnavel General Hospital, Glasgow

09.55 **OPAT & Paediatric OPAT Standards and Practical Implications for the Hospital and Community**
Dr Sanjay Patel, Consultant Paediatrician, Southampton University Hospitals NHS Foundation Trust
Dr Ann Chapman, Consultant in Infectious Diseases, Royal Hallamshire Hospital, Sheffield

10.25 **Recording OPAT treatment episodes and outcomes – review of the UK Patient Management System and initial data from the UK Outcomes Registry**
Mark Gilchrist, Consultant Pharmacist, Imperial College Healthcare NHS Trust

10.45 **Coding – the route to establishing an OPAT tariff**
Debbie Cumming, Pharmacist, NHS Isle of Wight

11.05 **Panel Discussion**

11.15 **Coffee, Posters & Networking**

SESSION TWO: Concurrent Sessions

Business Case Development and Commissioning

Chaired by Dr Graeme Jones, Consultant Microbiologist, Southampton University Hospitals NHS Foundation Trust

Antimicrobial Agents and OPAT

Chaired by Mark Gilchrist, Consultant Pharmacist, Imperial College Healthcare NHS Trust

11.50

Funding acquisition and business case development

Dr Amandip Sahota, ST7 & Dr Susan Alleyne, Consultant Microbiologist, University Hospitals of Leicester NHS Foundation Trust

Key considerations – choice of antimicrobial agents and managing the IV to oral switch

Dr Andrew Seaton, Consultant Physician, Gartnavel General Hospital, Glasgow

12.05

Funding acquisition and business case development: A Scottish perspective

Dr Claire Mackintosh, Regional Infectious Diseases Unit, Western General Hospital, Edinburgh

12.20

Commissioning OPAT services – balancing the elements

Sharon Rourke, Senior Commissioning Manager, Acute and Service Redesign, NHS Blackpool Clinical Commissioning Group

Device choices for OPAT – stability data and patient safety

Tim Hills, Antimicrobial Pharmacist, University Hospitals of Nottingham NHS Trust

12.35

Q&A

Q&A

| | |
|--|--|
| 12.45 | Lunch, Posters & Practical Demonstrations |
| 13.45 | Intravenous Antibiotics in Homecare – The Bupa Experience Stephen Cook, Director of Pharmacy, Bupa Home Healthcare |
| SESSION THREE: OPAT Experiences Chaired by Dr Andrew Seaton, Consultant Physician, Gartnavel General Hospital, Glasgow | |
| 14.00 | The district general hospital experience Dr Sajjad Mirza, Consultant Microbiologist, Royal Blackburn Hospital |
| 14.20 | OPAT in the teaching hospital / tertiary centre Dr Ann Chapman, Consultant in Infectious Diseases, Royal Hallamshire Hospital, Sheffield |
| 14.40 | OPAT community led service Sue O'Hanlon, Lead Nurse IV Therapy, Bridgewater Community Healthcare NHS Trust |
| 15.00 | Panel Discussion |
| 15.10 | Coffee & Networking |
| SESSION FOUR: NHS & Privately Provided OPAT Services Chaired by Dr Ann Chapman, Consultant in Infectious Diseases, Royal Hallamshire Hospital, Sheffield | |
| 15.30 | Horses for Courses - one model does not fit all! |
| | A successful NHS provided service Sister Kate Owen, District Nurse, Dudley Group NHS Foundation Trust |
| | Successful fulfilment of an OPAT service through a private provider Dr Susan Clarke, Clinical Lead for National OPAT Programme Ireland, St James' Hospital, Dublin |
| 16.20 | Providing the best outcomes for patients - closing remarks Dr Frances Sanderson, Consultant in Infectious Diseases, Imperial College Healthcare NHS Trust |
| 16.30 | Close |



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SESSION ONE: UK Overview, Standards & Outcomes

Chaired by Mark Gilchrist & Dr Andrew Seaton



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Welcome and Overview

Mark Gilchrist & Dr Andrew Seaton



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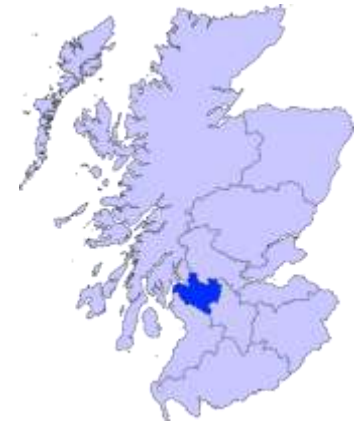
The UK OPAT Initiative- Then, Now & in the Future, Overview of 2013 Audit

Dr Andrew Seaton

The UK OPAT Initiative – then, now & in the future

R. Andrew Seaton

NHS Greater Glasgow and Clyde,
Scotland, UK



OPAT Evidence, Experience and Consensus

- OPAT, CoPAT since early 80s in USA
 - North American practice guidelines published in 1998 and 2004
 - OPAT registry until c2002
- Hospital at the home in Australia (1990s-)
- O(H)PAT, NIPIV in Italy, Netherlands, Austria developing 1990s-

OPAT Evidence

- Disease-specific *guidance* (Endocarditis)
- 2 RCTs of OPAT: 1999 (n=100, variety) and 2004 (n=200, SSTI).
 - Mainly Cefazolin BD
- Hospital care at home *systematic review* (total 1327 patients) 2009
- RCTs of new antimicrobials includes OPAT Rx pts

von Reyn, Clin Infect Dis 2001; 32: 203 Corwin et al BMJ doi 10.1136/bmj.38309.447975.EB;

Board et al Aust N Z J Public Health 2000; 24:305

Shepperd et al CMAJ 2009; 180: 175

History of OPAT care in the UK

- Ad hoc development since mid-late 1990s
- Traditionally ID led
 - Oxford: Community based nursing team
 - Dundee: Hospital team with strong community nursing links
- Approx 32 centres in 1999
- UK consensus statement 1998
- European consensus 2000
- *Patient Group Directions* 2005 (UK, SSTI)



Nathwani and Conlon Clin Micro Infect 1998; Nathwani
Clin Micro Infect Dis 2000 Seaton et al JAC 2005

Barriers to OPAT in the UK (1999)

Survey of UK Infection Specialists (n=157)*

| Perceived barrier to OPAT | Proportion of respondents, % |
|---|------------------------------|
| Funding issues | 35 |
| Difficult to co-ordinate/oversee care | 30 |
| Fragmented distribution of patients | 27 |
| Training issues | 17 |
| Lack of guidelines/experience | 13 |
| Time constraints | 11 |
| Safety (line care or drug administration) | 10 |
| Geographical constraints | 5 |

*** Estimate of 32 OPAT services in UK**

BSAC OPAT Initiative 2009

Objectives:

- Publication of peer reviewed standards for the delivery of OPAT services
- Business case models to assist HCPs develop local OPAT services
- Measure the impact of the project (clinical effectiveness, economic impact, patient experience)
- UK-wide educational workshops to inform, instruct and support those wishing to implement OPAT services in their locality
- Development of web-based educational resources to support those with, or wishing to establish, OPAT



BSAC OPAT Projects 2009 -

- UK Stakeholder Meeting 2009: Chair Dilip Nathwani
- Working parties established
 - OPAT Good Practice recommendations: BSAC/BIA
 - OPAT Business Case toolkit
 - OPAT Patient Management System & Registry
- E-OPAT
- UK Workshops

UK OPAT Status 1999 vs 2011

| | | 1999 | | 2011 | |
|-------------------------------|--|--------------|-----|-----------|-----|
| Infection sp. Contacted | | 345 | | 296 | |
| Response to survey | | 46% | | 66% | |
| Existing OPAT service | | 32 (21%) | | 107 (64%) | |
| OPAT service + like to expand | | - | | 85 (86%) | |
| No OPAT but like to develop | | 125 (61%) | | 48 (81%) | |
| Main development barriers: | | | | | |
| | | Funding | 35% | Clinician | 24% |
| | | Leadership | 34% | Nurse | 23% |
| | | Coordination | 37% | Bus. case | 20% |



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OPAT Projects

European Summit on OPAT 2011





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OPAT Projects

- Website www.e-opat.com launched 2011

Home

Resources

2012 Meetings

Patient Management System

Business Case Toolkit

Outcomes Registry

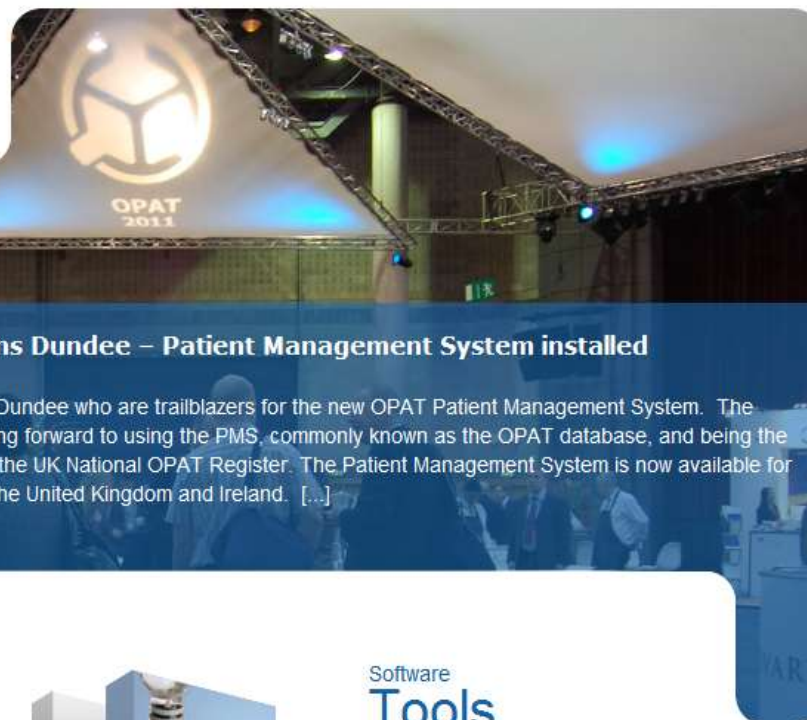
Partners



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Congratulations Dundee – Patient Management System installed

Congratulations to Dundee who are trailblazers for the new OPAT Patient Management System. The OPAT team is looking forward to using the PMS, commonly known as the OPAT database, and being the first contributors to the UK National OPAT Register. The Patient Management System is now available for installation across the United Kingdom and Ireland. [...]



Forthcoming Meetings

Who Should Attend?

Register



Software Tools

The Business Case Toolkit

OPAT Patient Management System

Outcomes Registry



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OPAT Projects

Good Practice recommendations available to download from website 2012

Journal of Antimicrobial Chemotherapy Advance Access published January 31, 2012

J Antimicrob Chemother
doi:10.1093/jac/dks003

**Journal of
Antimicrobial
Chemotherapy**

Good practice recommendations for outpatient parenteral antimicrobial therapy (OPAT) in adults in the UK: a consensus statement

Ann L. N. Chapman^{1*}, R. Andrew Seaton², Mike A. Cooper³, Sara Hedderwick⁴, Vicky Goodall¹, Corienne Reed⁵,
Frances Sanderson⁶ and Dilip Nathwani⁷ on behalf of the BSAC/BIA OPAT Project Good Practice Recommendations
Working Group†

¹Department of Infection and Tropical Medicine, Royal Hallamshire Hospital, Sheffield S10 2JF, UK; ²Brownlee Centre, Gartnavel General Hospital, Glasgow G12 0YN, UK; ³Department of Microbiology, New Cross Hospital, Wolverhampton WV10 0QP, UK; ⁴Royal Victoria Hospital, Belfast BT12 6BA, UK; ⁵Salford Royal Foundation Trust, Salford M6 8HD, UK; ⁶Clinical Infectious Diseases, Charing Cross Hospital, Fulham Palace Road, London W6 8RF, UK; ⁷Ninewells Hospital & Medical School, Dundee DD1 9SY, UK

*Corresponding author. E-mail: ann.chapman@sth.nhs.uk

Good practice recommendations for outpatient parenteral antimicrobial therapy (OPAT) in adults in the UK: a consensus statement

1. OPAT team and service structure
2. Patient selection
3. Antimicrobial management and drug delivery
4. Monitoring of the patient during OPAT
5. Outcome monitoring and clinical governance

Journal of Antimicrobial Chemotherapy Advance Access published January 31, 2012

- OPAT software tools launched in 2012





Patient Management System



Pre Admissions

Virtual ward

Database

Questionnaire

Reporting

Admin

Log Out

First Name : *

Referred date : *

Surname : *

Date of birth : *

NHS Number : *

Ward : *

Speciality : *

Commissioning
Health Boards :

Add

All fields marked with * are mandatory

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OPAT Registry

BSAC - Supporting the clinical need for OPAT



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



Username:

Password:

[Click here to register](#) >

Total number of OPAT centres: **90**

Total number of patients treated **304**

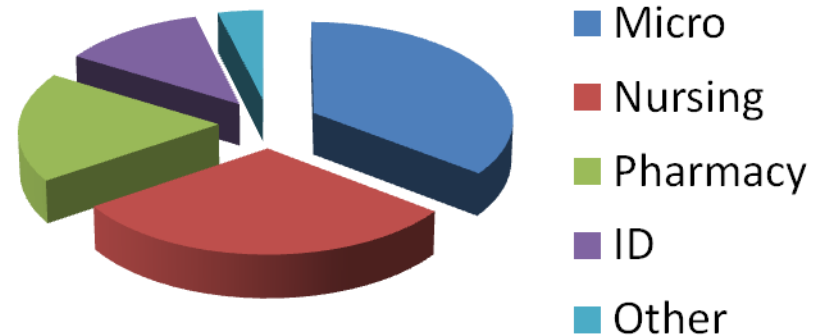
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BSAC OPAT Workshops

- 8 Events, UK wide
- Feedback from >200 attendees
 - 98.1% presentations appropriate
 - 97.6% meeting content adequate for educational needs
 - 97.5% excellent/ good workshop

Attendees



BSAC OPAT Workshops: Feedback...

- More on antimicrobial regimens including oral Rx and PK/PD
- More case based discussions
- More “practical tips”
- More discussion on antimicrobial choices. It appeared that ceftriaxone and teicoplanin were the mainstay of antimicrobial treatment options. This can have problems such as CDI and VRE/GRE respectively. Plus, they wouldn't be common treatment choices in (my) hospital setting, begging the question 'are patients getting better treatment by staying in hospital?'

BSAC OPAT Standing Committee 2013



Workstreams

- Patient Management System, Audit and National Outcomes Registry
- Community Led OPAT Services
- Economics and Coding
- Paediatric OPAT (P-OPAT)
- Drug Stability and Testing
- Oral therapies, Antimicrobial Stewardship and OPAT



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2013 Standing Committee

Dr Matthew Dryden, Hampshire

BSAC General Secretary | Chair of the IV to Oral Switch in the OPAT Setting Work stream

Dr Mike Cooper, Consultant Microbiologist, Wolverhampton

BSAC Meetings Secretary

Dr Andrew Seaton, Consultant Physician, Glasgow

Co-Chair of the Standing Committee

Dr Mark Gilchrist, Consultant Infectious Diseases Pharmacist, London

Co-Chair of the Standing Committee | Chair, Patient Management System Work stream | Member Audit and National Outcomes Registry Work stream | Member, Drug Stability and Testing Work stream

Dr Graeme Jones, Consultant Microbiologist, Southampton

Co-Chair, Economics and Coding Work stream

Debbie Cummings, Pharmacist, Isle of Wight

Co-Chair, Economics and Coding Work stream

Tim Hills, Antimicrobial Pharmacist, Nottingham

Co-Chair, Drug Stability and Testing Work stream

Dr Susan Snape, Consultant in Infectious Diseases, Nottingham

Co-Chair, Drug Stability and Testing Work stream

Dr Frances Sanderson, Consultant in Infectious Diseases, London

Chair, Community Led OPAT Services Work stream

Dr Sanjay Patel, Consultant Paediatrician, Southampton

Chair, Paediatric OPAT (P-OPAT) Work stream | Member, Patient Management System, Audit and National Outcomes Registry Work stream

Dr Ann Chapman, Consultant in Infectious Diseases, Sheffield

Member, Community Led OPAT Services Work stream

Dr Paul Jhass, Advanced Pharmacist, Kent

Member, Community Led OPAT Services Work stream

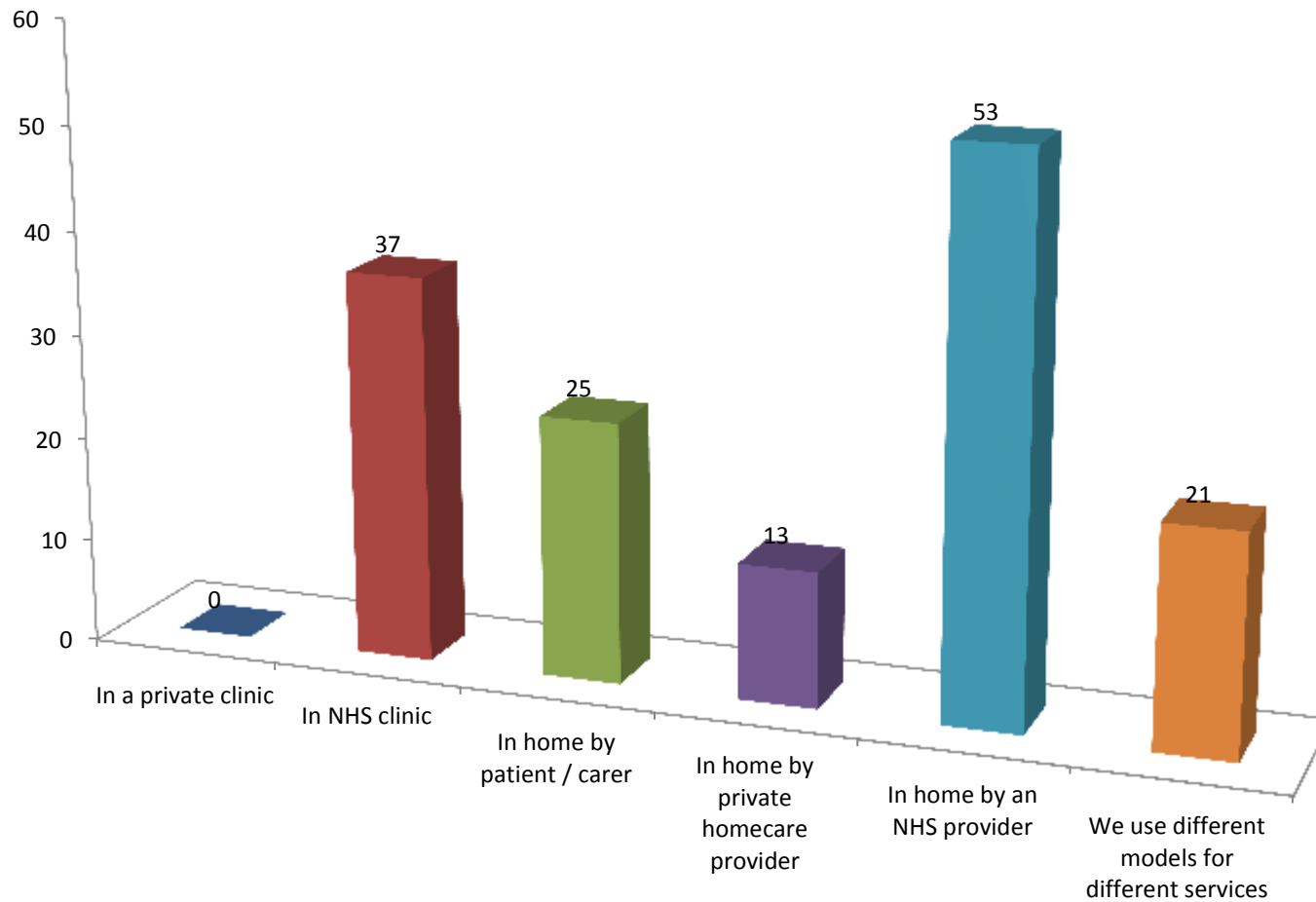
Sue O'Hanlon, Lead Nurse IV Therapy, Bridgewater

Nursing Lead | Member, Community Led OPAT Services Work stream

2013 Survey of 193 Trusts/HBs

- 119 (63%) response
- 68% have service
- 82% Hospital based
- 85% would like to extend the service
- 57% Nurse resource main barrier to development

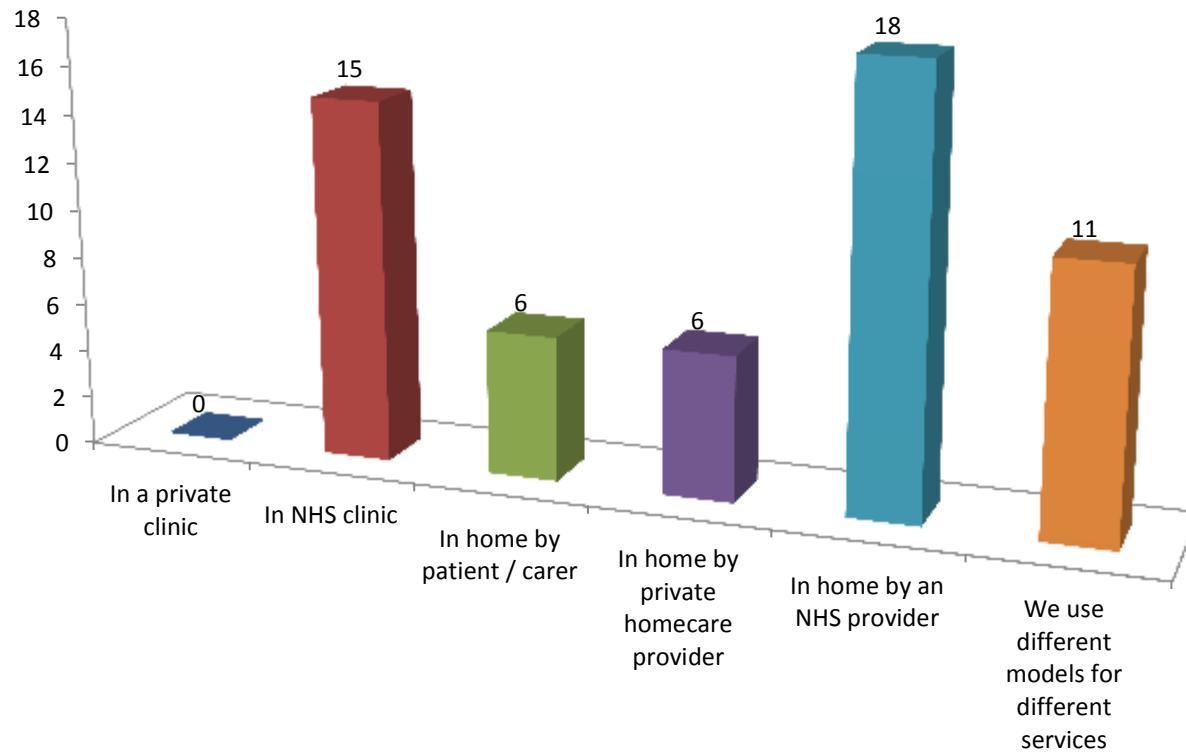
2013: OPAT Models



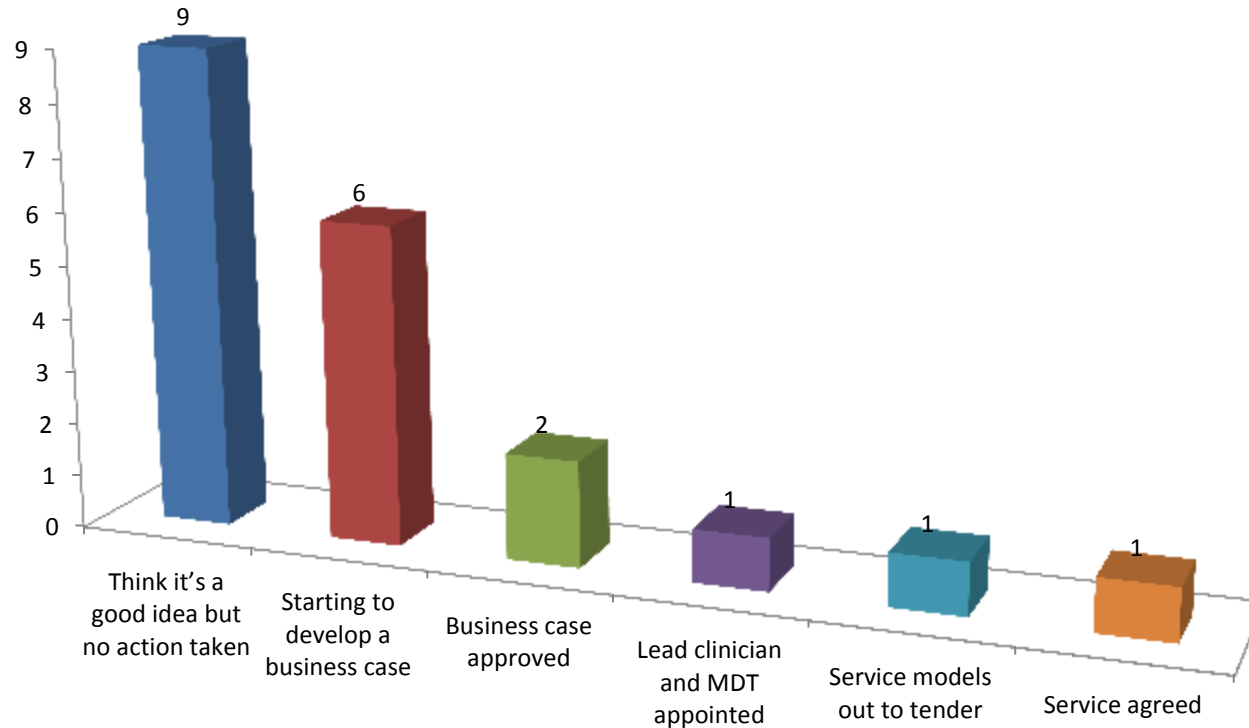
2013 Survey: No OPAT service

- 87% would like an OPAT service
- 41%: Cost most important reason for not having a service
- 60%: Nurse/ clinician availability main barrier to service provision

Status of OPAT: Proposed Model



Status of OPAT Development





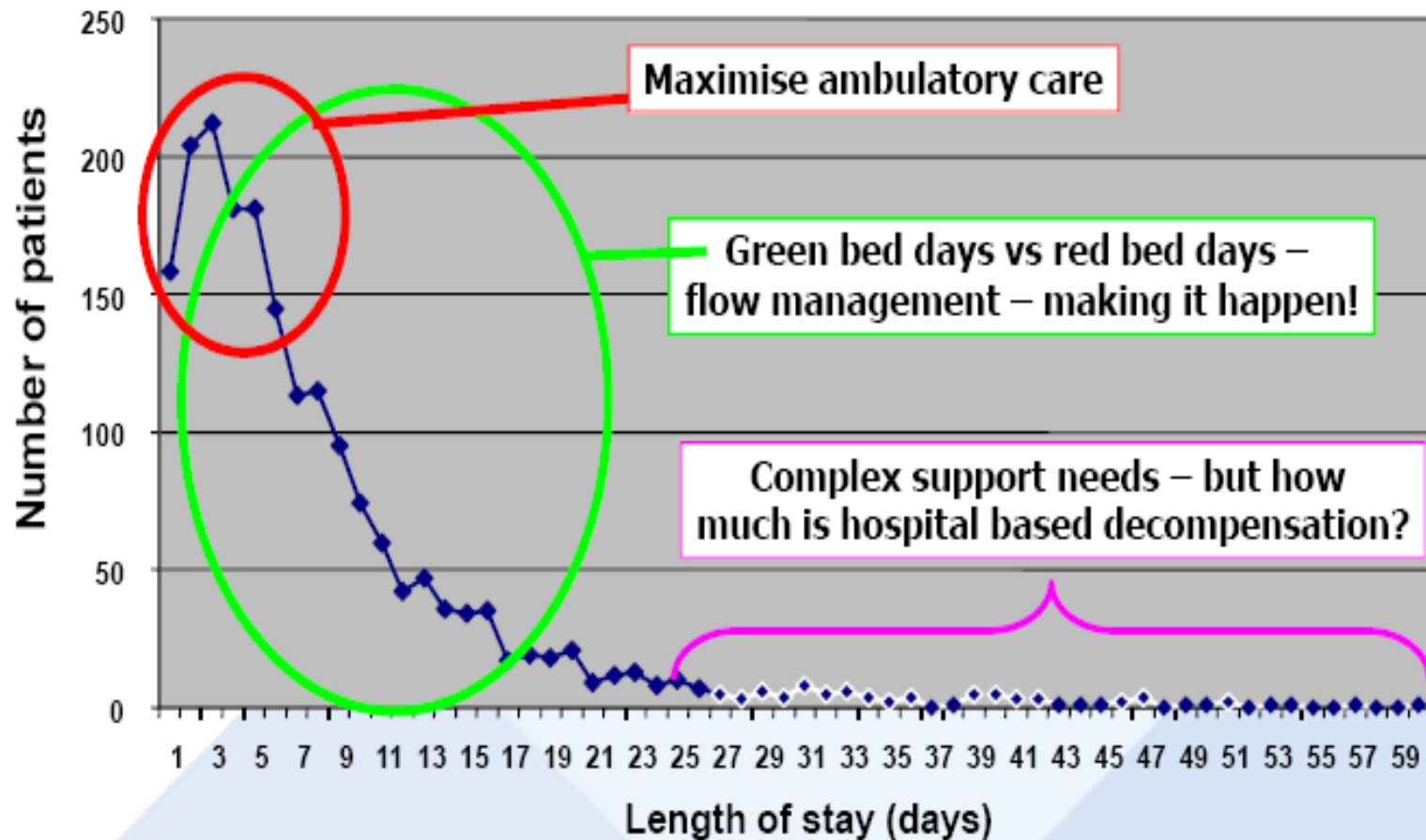
OPAT in the UK: The Future?

- Peer support of further OPAT development
- Funding and reimbursement: Tackle at national level
- UK roll out of OPAT Patient Management System
- UK-wide centre upload of data to OPAT Registry
- Release of paediatric software tools (POPAT)

Managing Length of Stay

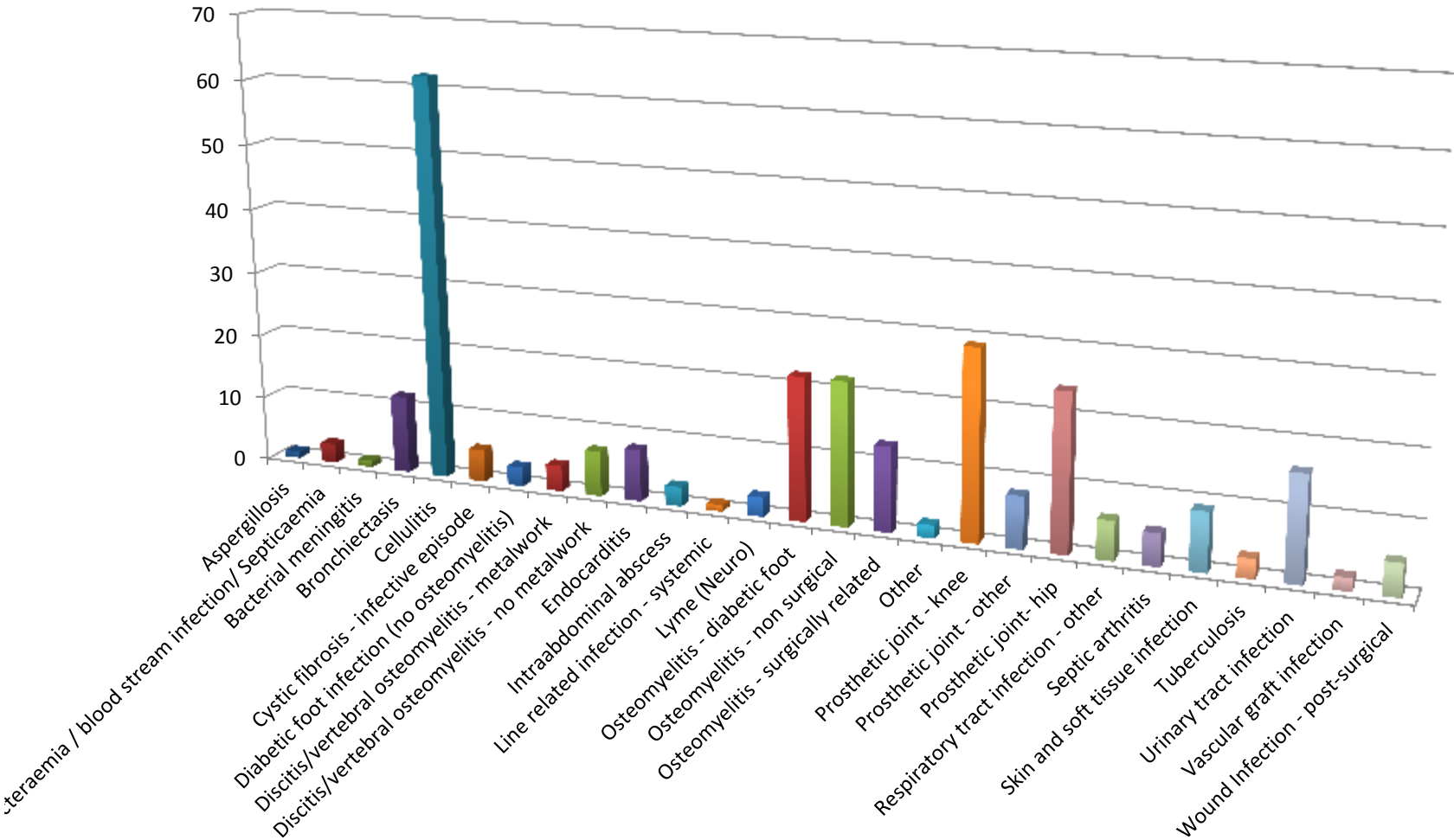


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and Improvement*






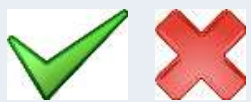
















Acknowledgement: Gautam Ray

2011 Survey: Which patients would you like to extend to?



Challenges of Emerging UK models of OPAT

| Leadership | Complex infection Mx expertise | Inpatient resource | Facility to avoid admission | Pan hospital reach | “Ubiquity” |
|------------------------------|---|---|---|---|---|
| ID specialist |  |  |  |  |  |
| Microbiology |  |  |  |  |  |
| Acute/ Emergency medicine |  |  |  |  |  |
| Primary care |  |  |  |  |  |

OPAT trends over 10 yrs in NHS GGC

| | Trend over time | | |
|---|-----------------|-------------------------------|--------------|
| Referral from non-local hospital | ↑ | $X^2_{\text{trend}} = 72.92$ | $p < 0.0001$ |
| Referral from secondary care | ↑ | $X^2_{\text{trend}} = 26.07$ | $p < 0.0001$ |
| Co-morbidity | ↑ | $X^2_{\text{trend}} = 24.07$ | $p < 0.0001$ |
| Non-SSTI infection | ↑ | $X^2_{\text{trend}} = 97.14$ | $p < 0.0001$ |
| MRSA infections (as % of <i>S. aureus</i>) | ↓ | $X^2_{\text{trend}} = 6.682$ | $p = 0.0097$ |
| G-ve infections (% of +ve cultures) | ↑ | $X^2_{\text{trend}} = 10.491$ | $p = 0.0012$ |
| Self / carer antibiotic admin | ↑ | $X^2_{\text{trend}} = 48.49$ | $p < 0.0001$ |

OPAT in the UK: Challenges?

- Changing hospital population
- Antimicrobial Stewardship
 - Infection specialist leadership
 - IVOST and Duration of Therapy
 - Restrictions on IV agents (stability / frequency of administration))
- Engagement with “OPAT” within other models of ambulatory care
- Funding and OPAT tariffs

Summary and Conclusions

- Interest and practice of OPAT growing in UK
- Different models of care developing with different focus
- Key developments via the BSAC Initiative
- Resource/ personnel, “business case” development main barriers to development and expansion
- Funding and reimbursement is a challenge

Acknowledgements

Tracey Guise, Esme Caruthers (BSAC), Terri Martin
and Debbie Lancaster (Pharma Mix), Mark
Gilchrist and BSAC standing committee members
Past OPAT initiative chair Dilip Nathwani

