OPAT
Outpatient Parenteral Antimicrobial Therapy

BSAC
The British Society for Antimicrobial Chemotherapy

Where next for OPAT in the UK

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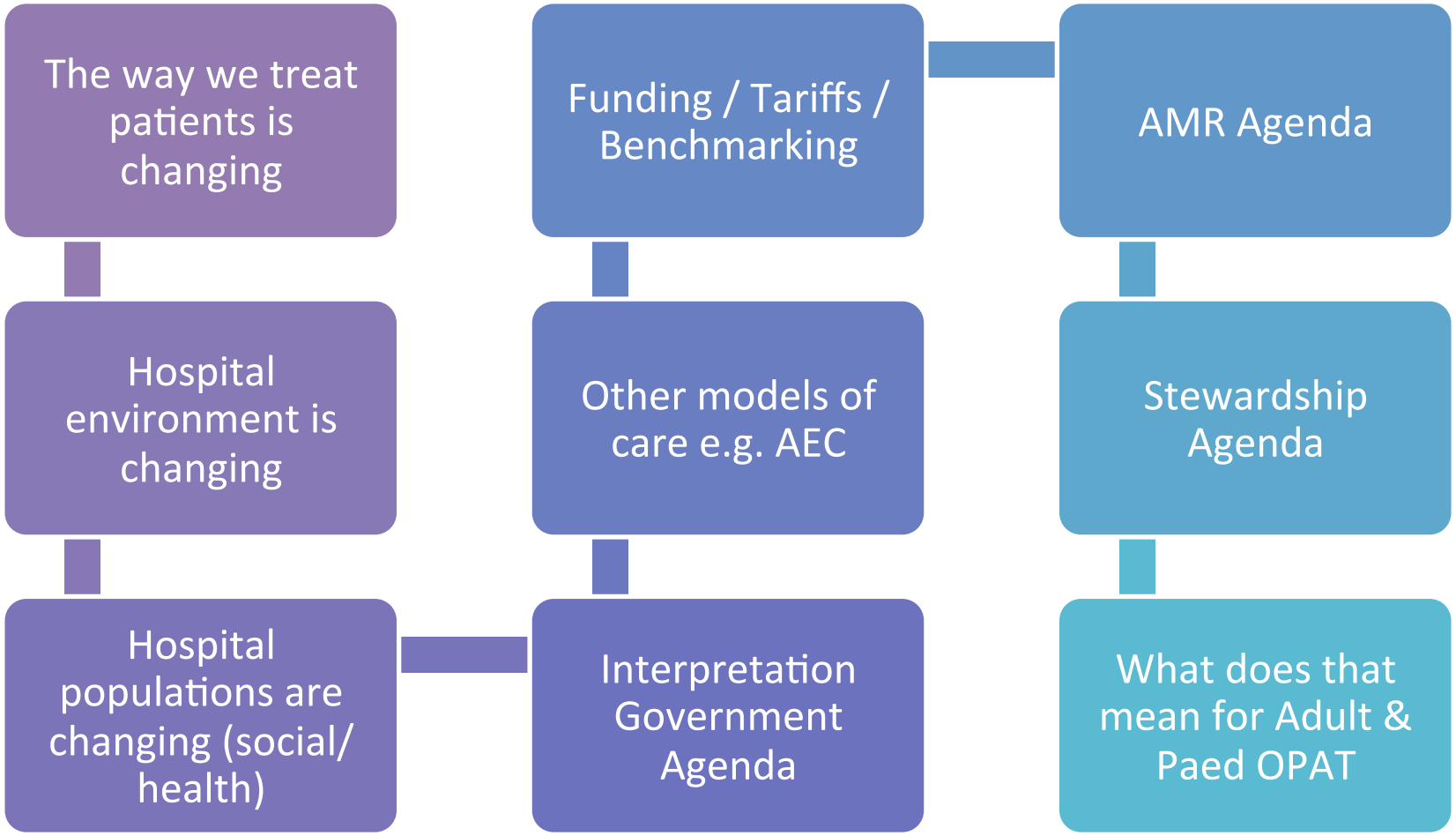
What have we heard



2016-8 OPAT Strategy Key Objectives

- Establish a proactive OPAT community
- Standardised open access data & creation of Drug stability centre
- Sharing of OPAT data and driving quality improvement
- Development of competencies & framework
- Establishment of OPAT tariff
- OPAT antimicrobial use reviewed within stewardship programme

Establish proactive OPAT community

Arch Dis Child. 2016 Sep;101(9):e2. doi: 10.1136/archdischild-2016-311535.32.

WHAT IS THE MAXIMUM TEMPERATURE REACHED IN ELASTOMERIC DEVICES UNDER SIMULATED OPAT CONDITIONS?

Merwe Sv[1], Green H[2].

Author information

Abstract

AIM: Outpatient parenteral antimicrobial therapy (OPAT), both in children and adults, is increasing in use as part of a cost saving measure for the NHS.1 However there is a general lack of stability data for antibiotics in elastomeric devices. The 'Yellow Covered Document'2 (YCD), as it is commonly known, specifies the storage conditions, under which stability testing should be carried out ranging from freezing to a worst case scenario of 37°C±2°C. It is assumed that a temperature of 37°C equates to wearing a device reservoir under clothing close to the body e.g. under a winter coat, however evidence sup
solution in an elastomeric device becomes und

METHOD: The study was conducted during the
devices: 240 ml Baxter Infusor LV 10 (BI) and
sterile water to simulate the drug solution. Tem
period at ambient temperature, simulating patie

RESULTS: The water in the BI took 4 hrs 0 min

OPAT ambulatory/elastomeric pump – filling at point of use (1 post)

Viewing post 1 to 1 (1 total posts)

Mute this topic

Flag | #

From: asid-ozbug-bounces@malbec.burnet.edu.au [mailto:asid-ozbug-bounces@malbec.burnet.edu.au] **On B**
Sent: Tuesday, November 15, 2016 6:46 AM
To: asid-ozbug@burnet.edu.au
Cc:
Subject: [asid-ozbug] Ceftazidime infusions on HITH

Hi All,
From those of you that are involved with HITH/OPAT programs we are after some advice.

How are others tackling the recommendation from TG15 that Ceftazidime is not stable in a room temperature infuser over 24

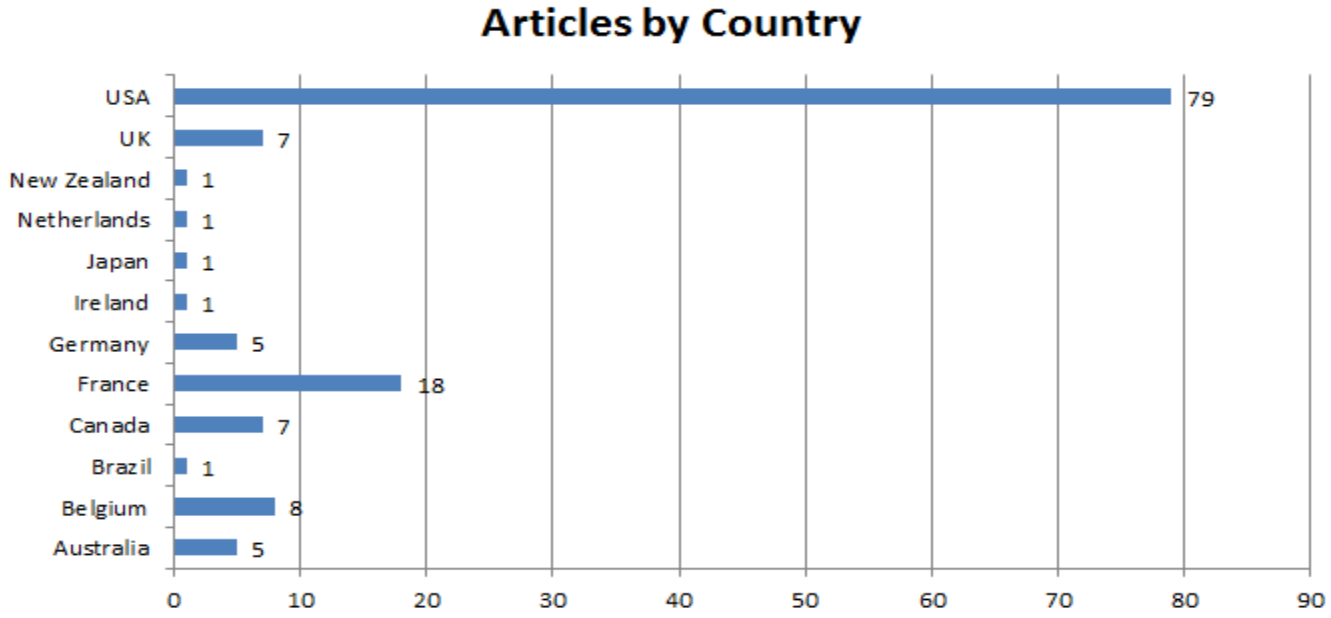
A few questions:

1) Is this updated recommendation being broadly followed by others?
2) Does anyone have local data to support a 24 hour stability?
3) Is there an alternative agent where we need a cephalosporin. We have considered Cefepime but the maximum concentrati

here – I did a quick search but

point of use (i.e. not in a sterile

lling to share, please could you send



Decade of Publication	No. Articles
1980s	25
1990s	55
2000s	38
2010s	16

Extended Stability of Antimicrobial Agents in Administration Devices. Jenkins A, Hills T, Santillo M, Gilchrist M
Accepted for publication Nov 2016 Journal Antimicrobial Chemotherapy

PROVIDING OPEN ACCESS STABILITY DATA ON AGENTS AND DEVICES USED IN INFECTION MANAGEMENT

- Stability testing has been far more complex than any of us anticipated
- Flucloxacillin preliminary studies have started and full studies are due to start imminently (Spring 17)
- Remember - ask for data from suppliers particularly at 37^0C and remember that we require API at 95% at the end of the infusion

Eur J Clin Microbiol Infect Dis. 2016 Oct;35(10):1673-7. doi: 10.1007/s10096-016-2709-6. Epub 2016 Jun 20.

Tigecycline use in the outpatient parenteral antibiotic therapy setting.

Ingram PR[1,2], Rawlins MD[3], Murray RJ[4,5,6], Roberts JA[7,8], Manning L[9,10].

Author information

Abstract

In the context of globally increasing antimicrobial resistance, tigecycline appears to be a useful therapeutic option. The need for prolonged courses for complex infections has prompted consideration of its use via outpatient parenteral antibiotic therapy (OPAT) programmes, although clinical outcomes when used in this setting remain unknown. We retrospectively reviewed the patient characteristics and outcomes of 11 patients who received tigecycline, most commonly delivered as 100 mg once daily, via OPAT at three tertiary Australian hospitals. Rates of co-morbidity and prior antibiotic use were high. Patients had a wide range of infections including bone and/or joint (n = 5), intra-abdominal (n = 3), lower respiratory tract (n = 2) and parapharyngeal abscess (n = 1). Mycobacterial species (n = 5) were the most frequent pathogen, and multi-res
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Consult Pharm. 2016 Apr;31(4):207-14. doi: 10.4140/TCP.n.2016.207.

Ertapenem-Induced Hallucinations and Delirium in an Elderly Patient.

Veillette JJ[1], Van Epps P.

Author information

Abstract

OBJECTIVE: To report a case of ertapenem-induced hallucinations and delirium in an elderly, morbidly obese patient.

SETTING/PRACTICE DESCRIPTION: A 71-year-old male was receiving intravenous antibiotics at an outside nursing facility through our Outpatient Parenteral Antimicrobial Therapy (OPAT) program, which has enrolled more than 800 patients since 2009. He was admitted to our medical center, a 673-bed tertiary health care facility, which provides care to more than 100,000 veterans in Northeast Ohio.

MAIN OUTCOME/RESULTS: Our patient was admitted with an acute heart failure exacerbation after being discharged four weeks prior with a plan to complete six weeks of intravenous daptomycin 1 g daily and ertapenem 1 g daily for a left-calcaneal diabetic foot osteomyelitis. On initial exam, in addition to volume overload, he was noted to have fluctuating orientation, hallucinations, and suicidal ideations, which were all a significant change from his baseline mentation. A physical, laboratory, and radiologic workup revealed no conclusive etiology for his symptoms, at which point drug-induced toxicity was suspected. Upon discontinuation of ertapenem, the patient rapidly improved over the next 72 hours, including return to baseline mentation and absence of any suicidal thoughts. Use of the Naranjo probability scale indicated a probable relationship between ertapenem and the adverse effects experienced by our patient.

CONCLUSION: This case report and literature review demonstrates the potential severity of non-seizure-related neurotoxicity associated with ertapenem. As this toxicity can be life-threatening if unrecognized, it is crucial that clinicians across all practice settings be proactive in detecting and preventing it.

Oral Therapies within OPAT arena

Objectives

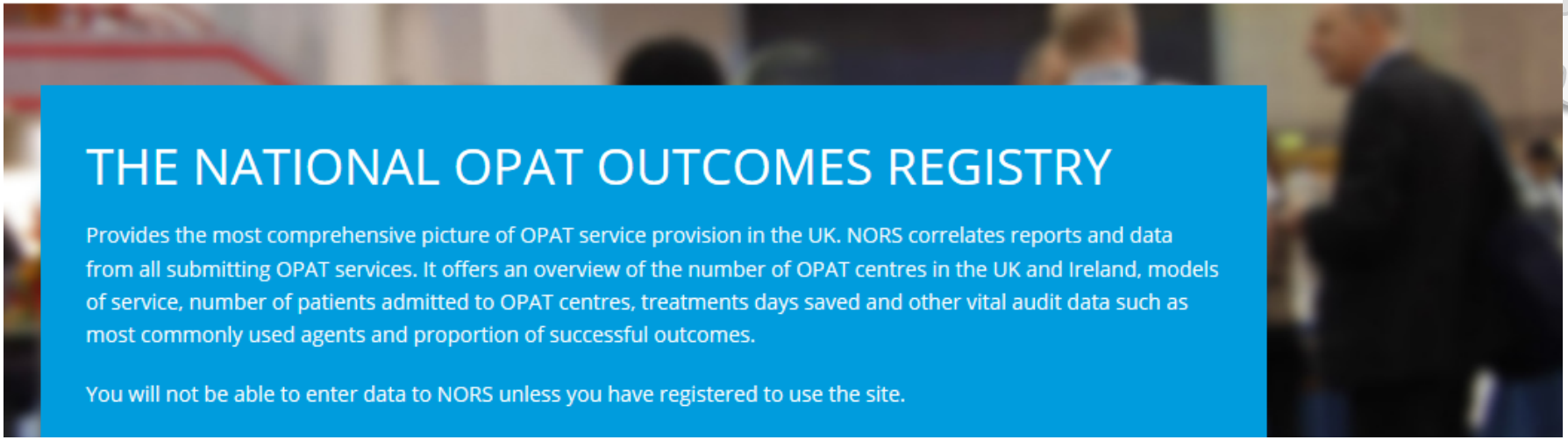
- Review the evidence base to support antimicrobial prescribing practice in 2 key areas of OPAT:

- Bone and joint and skin & soft tissue infections
- Specifically
  - **Identify criteria to support earlier or exclusive use of oral therapy**
  - **To provide guidance in the appropriate safe use of oral therapy**
  - **To identify important gaps in knowledge which could better inform antimicrobial practice in BJI and SSI particularly in the OP setting.**

The British Society for Antimicrobial Chemotherapy

OPAT Outpatient Parenteral Antimicrobial Therapy

NORS



THE NATIONAL OPAT OUTCOMES REGISTRY

Provides the most comprehensive picture of OPAT service provision in the UK. NORS correlates reports and data from all submitting OPAT services. It offers an overview of the number of OPAT centres in the UK and Ireland, models of service, number of patients admitted to OPAT centres, treatments days saved and other vital audit data such as most commonly used agents and proportion of successful outcomes.

You will not be able to enter data to NORS unless you have registered to use the site.

ADULT

20 OPAT SERVICES

2115 OPAT PATIENT EPISODES

31759 TREATMENT DAYS

ADULT TOP PRIMARY INFECTIVE DIAGNOSES

CELLULITIS	32%
UTI	10%
BRONCHIECTASIS	8%
OSTEOMYELITIS - DF	5%
PROSTHETIC JOINT - KNEE	5%

PAEDIATRICS (P-OPAT)

3 OPAT SERVICES

146 OPAT PATIENT EPISODES

2102 TREATMENT DAYS

PAEDIATRIC TOP PRIMARY INFECTIVE DIAGNOSES

OSTEOMYELITIS - NON-S	18%
BRONCHIECTASIS	7%
SEPTIC ARTHRITIS	7%
BACTERIAL MENINGITIS	6%
FEVER IN EARLY INFANCY	6%

PMS & Registry Development

- Registry is currently being revised
  - Proposal Sentinel OPAT Centres within a region
  - Simple core data entry
  - BSAC will be sending a survey to understand what users want

- Patient Management System
  - Software development gap
  - Needs dedicated IT support and infrastructure
  - BSAC will enter into partnership with Horizon
  - Allow improvement & development

Support for development of competency framework

- Work collaboratively with regulatory bodies to gain support for development of competency framework
- Undertake literature review to establish current frameworks
- Develop framework
- Evidence based peer reviewed report of competencies for all OPAT practitioners

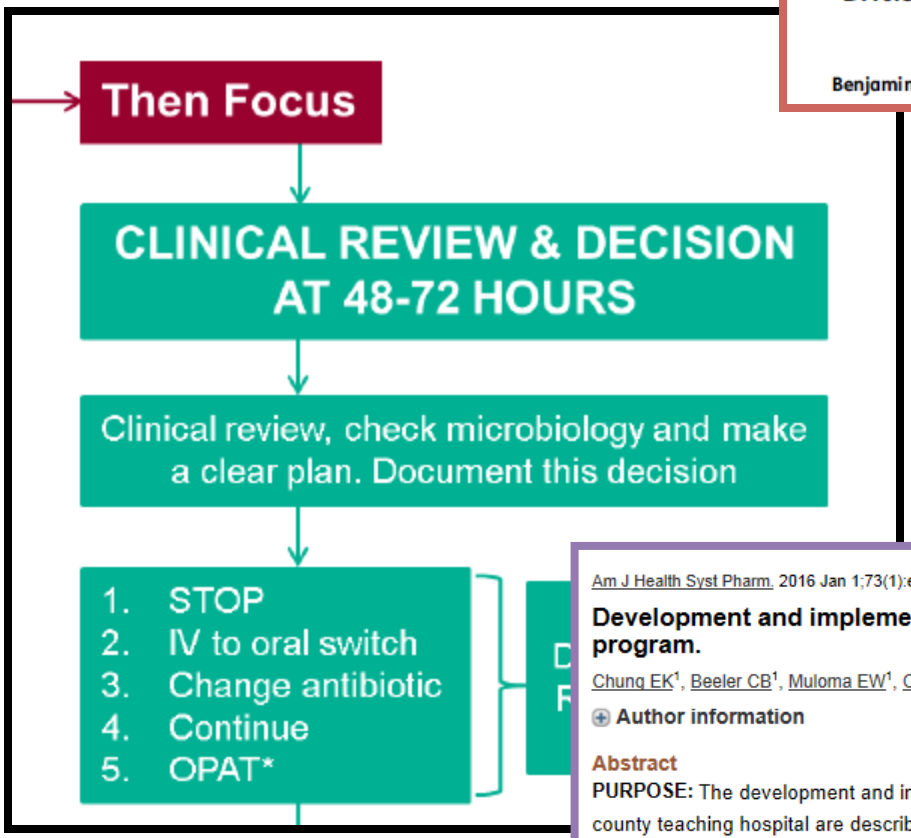
Working in partnership

J Antimicrob Chemother 2016; **71**: 3026–3035
doi:10.1093/jac/dkw287 Advance Access publication 25 July 2016

Journal of Antimicrobial Chemotherapy

Antimicrobial stewardship in wound care: a Position Paper from the British Society for Antimicrobial Chemotherapy and European Wound Management Association

Benjamin A. Lipsky[1,2]*, Matthew Dryden[3], Finn Gottrup[4], Dilip Nathwani[5], Ronald Andrew Seaton[6] and Jan Stryja[7]



Ambulatory Emergency Care

Acute Medicine

Am J Health Syst Pharm. 2016 Jan 1;73(1):e24-33. doi: 10.2146/ajhp150201.

Development and implementation of a pharmacist-managed outpatient parenteral antimicrobial therapy program.

Chung EK[1], Beeler CB[1], Muloma EW[1], Osterholzer D[1], Damer KM[1], Erdman SM[2].

Author information

Abstract

PURPOSE: The development and implementation of a pharmacist-managed outpatient parenteral antimicrobial therapy (OPAT) program in a county teaching hospital are described.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/417032/Start_Smart_Then_Focus_FINAL.PDF

Stewardship / OPAT dilemma

- Stewardship Primary Aim:
  - Individual patient care
  - Most effective, safe and narrow spectrum agent
  - Least capacity for collateral effects
  - For a specific indication

- OPAT
  - Aims are similar
  - Although convenience of dosing to optimise early hospital discharge or admission avoidance may take precedence over an agent's spectrum of activity

Gilchrist & Seaton 2015 JAC Outpatient Parenteral Antimicrobial Therapy & Antimicrobial Stewardship: Challenges and Checklists

Individual patient management	OPAT service antimicrobial management
At each patient encounter (including case discussion/virtual ward round) the following are reviewed: - The patient's clinical and social picture. - Previous and current microbiology, including antibiograms. - Radiological imaging as appropriate. - Need for surgical intervention/source control as appropriate. - Laboratory markers and antimicrobial therapeutic monitoring. - Tolerability and effectiveness of the patient's antimicrobial regimen. - Opportunities for intravenous to oral switch considered.	Within an OPAT service: - All the antimicrobials currently in use are authorized by the host organization's antimicrobial stewardship committee or equivalent. - Does each antimicrobial prescribed fulfil the local antimicrobial prescribing standards? - All antimicrobials administered are in accordance with locally agreed protocols. - All antimicrobials are monitored where appropriate for toxicity or subtherapeutic concentrations. - There is an active intravenous to oral switch programme. - All antimicrobial adverse events are reported as per locally agreed protocols. - Antimicrobial resistance data are reviewed and considered.
OPAT service/organizational management	**OPAT staffing management**
Within an OPAT service: - An OPAT operational and governance policy exists that is approved by an appropriate healthcare committee. - A self-administration policy exists where appropriate. - There is a minimum of a weekly multidisciplinary review for the majority of OPAT patients. - A more detailed review is undertaken for any patient who suffers a failed OPAT outcome. - A healthcare-associated infection during OPAT is reported through local governance procedures. - An annual OPAT report is published and reviewed to look for continual improvement in clinical and managerial service delivery. - The service should endeavour to make links with other local OPAT services and contribute to data sharing and learning from peers.	Within an OPAT service: - There is a multidisciplinary (doctor/nurse/pharmacist) component to the OPAT service. - There is a member of the OPAT service represented at the antibiotic stewardship committee. - Where the service is run outside of the infection team, there is a link infection specialist involved in antimicrobial therapy decisions. - Each member of the OPAT team is up to date with current mandatory training and organizational updates around antimicrobials, infection prevention and control and vascular access. - Each member undertakes continuing professional development around the area of OPAT.

Gilchrist & Seaton 2015 JAC Outpatient Parenteral Antimicrobial Therapy & Antimicrobial Stewardship: Challenges and Checklists

Conclusions

- OPAT continues to be a stewardship intervention
- Promote AMS agenda within OPAT structures
- Willingness of OPAT community to share best practice + improve services
- Learning from our mistakes
- Work in partnership with local and national drivers/ enablers

Thank you

- BSAC
- Delegates
- Conference organisers
- Sponsors
- Speakers
- Technical Staff
- Catering Staff