OPAT or “NOPAT”: Emergency Departments and Acute Medical Management of Cellulitis in the UK

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Managing Length of Stay

Collaboration with Acute / Emergency Medicine and Primary care

Maximise ambulatory care

Green bed days vs red bed days – flow management – making it happen!

Complex support needs – but how much is hospital based decompensation?

Acknowledgement: Gautam Ray
2011 Survey: Which patients would you like to extend to?

Collaboration with Acute / Emergency Medicine and Primary care
Skin and Soft Tissue Infection
Good Practice Recommendations

• The treatment should include choice and dose, frequency and duration. Should take into account flexibility based on clinical response

• Antimicrobial choice within OPAT should be subject to review by the local antimicrobial stewardship programme

• Weekly MDT/virtual ward round

• SSTI should be reviewed daily by the OPAT team to optimize speed of intravenous to oral switch.
Nurse-led Mx for OPAT SSTIs

Comparison of patients pre- and post-introduction of a nurse-led management protocol

- Protocol management was associated with reduced duration of outpatient i.v. therapy (from 4 to 3 days, \( P=0.02 \))

SSTI: Median duration of OPAT (days)

Linear time trend in log (OPAT days)
Estimate 0.904 (0.886-0.922)
p<0.0001

Seaton RA et al, IJAA, 2011
OPAT for SSTI in MAU-ED

• Ideally positioned to avoid admission
• General Medical skills and team work essential
  – Suitability for OP care
  – Co-morbidity and concomitant medication
  – Adverse events monitoring and recognition
• Mx of infections common to acute medicine
  – Cellulitis/ SSTI
Survey

• Survey developed between BSAC, CoEM and SAM
  – Extent and nature of ambulatory Mx of SSTI (with IV Rx) at hospital “front door”
• Commercially acquired list of ED physicians
• 1,400 emails sent linking to Survey Monkey
  – c.20% “mail delivery error”
  – 10% completed
• Survey also to be sent to SAM members
• Results for ED physicians presented
Survey of ED Physicians

- 220 respondents
  - 89% Consultant
  - 94% 1\textsuperscript{st} in ED
  - Size of Hosp (beds)

- 13.3% <250
- 35.3% 250-500
- 47.2% 500-1000
- 4.1% >1000
Status of Ambulatory Care

![Bar Chart]

- **SSTI**
  - OP IV Rx SSSI: 180
  - No OP IV Rx SSSI: 40

- **DVT**
  - OP IV Rx SSSI: 200
  - No OP IV Rx SSSI: 40

- **PTE**
  - OP IV Rx SSSI: 120
  - No OP IV Rx SSSI: 20
No OP IV Rx for SSTI

• 27 (73%) thought it would be worthwhile
• 6 (16.2%) in process of developing
• Main obstacles:
  – Staffing 25 (76%)
  – Logistics 17 (55%)
  – Funding 15 (48%)
Models of OP IV Rx for SSTI

- Ad hoc ED: 35
- Ad hoc Med: 18
- Hosp led Amb care: 3
- Primary care Amb care: 8
- Infection led (OPAT): 14
- Mixed: 13
- Don't know: 62
- Other: 13
No. of Patients with SSTI via OP IV Rx/month

No. of responses

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Other OP Rx Infections

- Bronchiectasis
- Diabetic foot
- Orthopaedic
- UTI
- Endocarditis

Legend:
- Blue: Yes
- Red: No
- Green: Don't know
Perceived advantages of OP IV Rx of SSTI
Which IV Antibiotic is used in Ambulatory Mx of SSTI?
Antibiotic Stewardship/ Governance

- 23 (11%) aware of GPRs
- 137 (76%) AB choice approved by local antimicrobial stewardship programme
- 94 (53%) Clinical pharmacist involved in service
Antibiotic Stewardship/ Governance

• 145 (82%) inclusion/exclusion criteria
• 97 (55%) assessed daily for IV to oral switch
• 79 (44%) formal IVOST guidance
  – 69 (88.5%) Infection specialist involved in IVOST guideline development
  – 41 (53%) Nurse initiated IVOST
Funding Arrangements for OP Rx of SSTI

- Funded as part of an ambulatory care service
- Funded as part of an OPAT service
- Ad hoc arrangement with no formal funding
- Don't know
Summary (1)

• SSTI ambulatory Mx via EDs is widespread in the UK
  – Usually hospital-led via ambulatory care team
  – Minority via formal OPAT service
  – Majority involved in DVT Mx
  – Minority involved in other OP infection Mx

• Perceived to be beneficial to patient care

• Ceftriaxone most commonly used (variety) and majority are approved by AMS programme
Summary (2)

• Key Stewardship parameters within OPAT
  – 50% have involvement of a clinical pharmacist
  – 80% inclusion/exclusion criteria
  – 55% assessed daily for IVOST
  – 44% have formal IVOST guideline
    • 89% Infection specialist involved in guidance
    • 53% Nurse-led

• Lack of awareness of GPRs
Conclusion

• Scope for greater engagement with ED and ambulatory care teams to promote
  – GPRs
  – Clinical pharmacy and infection specialist involvement
  – Daily IVOST review
  – Promotion of Nurse-led IVOST

• Perspective of Acute Medicine Physicians also important
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