The development of an OPAT respiratory pathway

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- Regional provider for respiratory services including:
  - Cystic Fibrosis unit
  - Lung transplant centre
  - North West Ventilation Unit
  - Pulmonary Oncology Unit
  - National Aspergillosis Centre
  - Severe Asthma
  - Bronchiectasis service

The development of an OPAT respiratory pathway
In the beginning.....

- ‘Inherited’ respiratory IV service from Trust Community Respiratory Team
- 2 referral routes
- All bronchiectasis patients

Findings:
- Lack of microbiology
- Lack of antibiotic stewardship
- ‘Crude’ dosing for aminoglycosides
- Poor baseline assessments
- Ad-hoc safety labs/TDM
- Inadequate lines for community use
- 1st doses not always given
OPAT Aim:

- Incorporate BTS/NICE/OPAT guidelines
- Promote collaborative working across respiratory teams
- Improve patients experience
- Improve patients symptoms
- Be safe!
Standards for assessment:

- Meet & greet: consent & general ‘work-up
- Sputum collection & baseline bloods
- Pathway & treatment options
- Vascular access options
- St Georges QoL
- Baseline observations

Respiratory exclusion criteria:

Acopia, cyanosis, confusion, breathlessness (RR >25bpm), Pyrexia >38°C, respiratory or circulatory failure (BTS, 2012)
OPAT MDT review:

• Drug choice - guided by microbiology & work-up knowledge
• Treatment duration - usually related to the severity of the patients condition
• Vascular access decision - guided by Abx choice
• Pathway options – guided by postcode, drug choice & pt preference

Most common isolates:

• *Pseudomonas aeruginosa*
• *Haemophilus influenzae*
• *MSSA*
• *Proteus*
• *Strep. pneumoniae*
Pseudomonas aeruginosa (BTS, 2012)

Associated with:

- ↑ mortality
- ↑ risk of hospital admissions
- ↑ exacerbations
- ↓ QoL
- ↓ lung function

BTS IV recommendations:

- 2/52 IV beta-lactam +/- aminoglycaside
Monotherapy v dual therapy:

BTS (2012) suggests:

- **Monotherapy** – may be as good as combination therapy for sensitive strains of Ps.Aer
- **Dual therapy** – for resistant strains OR if clinician suspects the patient will require many other subsequent courses to ↓ risk of drug resistance

OPAT says:

- TDM in place?
- Dose determined per corrected renal function, PMH etc
- Cockcroft & Gault algorithm
- 3mg/4mg/5mg/kg

Development of a respiratory pathway for OPAT
Respiratory ‘cycling’ patients

- Range from 6/52 – 4/12
- Majority of ‘cyclical’ patients opt to self-administer medications
- Elastomeric devices generally used for self-pt’s

- Agreed Clinical Management Plans
- Joint MDT with main respiratory consultant
- DNAR & escalation plans

Development of a respiratory pathway for OPAT
In-pt

Team r/v on ward & referral to OPAT via email/blp 860

OPAT r/v: consent, access, Abx r/v & pathway discussion

ASPIRE referral inc pulmonary rehab where appropriate (BTS 2012 & 2014)

Community pathway

• Community nurses visit pt daily/twice daily at home
• OPAT F/U inc safety labs, line management, team & pt support

Out-pt

Team r/v in clinic, bloods & sputum obtained, referral to OPAT via email/blp 860

OPAT r/v: consent, access, Abx r/v & pathway discussion

Hospital pathway

• Pt attends PITU/F11 daily
• OPAT F/U inc safety labs, line management, team & pt support

Self-admin pathway

• Pt administers Abx therapies at home
• OPAT F/U inc safety labs, line care & pt support

Treatment complete: Repeat sputum culture (BTS, 2012) line removal, referral back to parent team for F/U & on-going care
**Challenges:**

- TDM not routinely available everywhere
- Turn-around time for bloods TDM not always ‘acceptable’
- Postcode lottery of services
  - Community IV services
  - CRT & community physiotherapy
- F/U with respiratory teams
- Aged microbiology
- Sputum collection
- QoL’s very subjective

**Going forward:**

- QoL’s analysis
- Audit of before & after OPAT respiratory pathway
- Standardisation of symptom review

Development of a respiratory pathway for OPAT
Thank-you!

Any questions?