Implementation of a structured Outpatient Parenteral Antimicrobial Therapy (OPAT) service by the hospital pharmacist in a regional hospital

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TO OPAT or TO NOPAT?

- OPAT (Outpatient Parenteral Antimicrobial Therapy) demonstrates to be safe and effective. Therefore it has widespread application outside Belgium.
- Based on international literature and local experience, a structured OPAT program was implemented at Imelda hospital in close collaboration with primary and secondary health care providers.
- Our goal was to set up a framework to establish and expand qualitative and safe OPAT care.

METHODS

- Literature analysis
- Retrospective analysis of OPAT patients of Imelda hospital including a pharmaco-economic analysis
- Surveys questioning health care providers’ point of view:
  - Antimicrobial Management Teams of 94 Belgian hospitals (with support of BAPCOC and in collaboration with UZ Gent)
  - Physicians Imelda hospital
  - Primary care providers in hospital’s region

RESULTS

PAST (OPAT IMELDA HOSPITAL, 2015)

- Most frequently treated infections: urinary tract, bone and joint, and genital tract infections
- Main prescribing physicians: urology, pediatrics and geriatrics
- Most frequently prescribed antibiotics: ceftriaxone and temocilline
- Majority of OPAT patients (74%) treated in day care hospital
- Average duration of OPAT therapy: 11 days
- Number of hospitalisation bed days saved: 822 days

HEALTH CARE PROVIDERS’ POINT OF VIEW

- Small scale application throughout Belgian hospitals
- Acknowledgment of benefits and potential
- Need for national OPAT program or guidelines
- Drawbacks:
  - lack of information and procedures, high costs for patient, restrictive legislation regarding drug delivery
- Central role of hospital pharmacist:
  - informing patients and health care providers, delivery of hospital restricted antibiotics, contact person after discharge

PRINCIPLES OF OPAT SERVICE

- Multidisciplinary approach
- Patient selection based on defined criteria
- Antibiotics and IV fluids delivery via community pharmacy (except short term backup and hospital restricted antibiotics)
- IV administration sets and trained nurses via external home care provider
- Validated tools and information leaflets:
  - flowchart and checklist for hospital care providers
  - patient selection criteria
  - general OPAT information brochure for patients
  - pricelist
  - informed consent form
  - form for home care provider
  - administration and monitoring instructions (per antibiotic) for home care nurses

OPAT SETUP FLOWCHART

1. Attending physician + microbiologist + hospital pharmacist:
   Evaluate whether OPAT is appropriate for specific patient/infection/antibiotic + selection type of catheter
2. Attending physician + patient:
   • Provide of information using general OPAT information brochure and pricelist
   • Obtain informed consent (agreement OPAT)
3. Attending physician: Complete form for home care provider
4. Hospital pharmacist: Complete OPAT report in medical records
5. Hospital pharmacist: Inform patient’s community pharmacist to order antibiotics and IV fluids
6. Attending physician / hospital nurse:
   • Insert catheter
   • Adminstrate first dose of antibiotic in hospital
7. Attending physician: Inform patient about follow-up consultations and monitoring
   • Inform GP by phone and complete discharge form
   • Monitor patient online via home care provider platform

PRESENT (OPAT IMELDA HOSPITAL 2016)

- More than twice as many patients on OPAT at home compared to 2015
- Approval and conduct by Antimicrobial Management Team
- Cooperation with external home care provider
- Tools and information leaflets available on intranet
- Participation in consortium in the scope of future reform of hospital financing

FUTURE

- Raise awareness and train primary and secondary health care providers
- Conduct patient satisfaction survey
- Intensify follow-up: registration and analysis of outcomes, side effects, complications and readmissions
- Perform risk analysis and audit of OPAT service

References:
- Seferis, R.A. and C.A. Ball - Outpatient parenteral antibiotic therapy: principles and practice

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