Treatment of Pseudomonas aeruginosa (PA) infection in CF patients

SWGCF protocol – 30.06.2009

I. Treatment protocol[1-5]

< 2 year-old child

- First manifestation: intravenous antibiotic therapy for 2 weeks, followed by one cycle of inhalative antibiotics combined with oral ciproxin
- In case of treatment failure: 3 months of inhaled antibiotics combined with oral ciproxin; consider intravenous antibiotic therapy

> 2 year-old child with pulmonary exacerbation

- The same as above

> 2 year-old child without pulmonary exacerbation

- First manifestation: one cycle of inhalative antibiotics combined with oral ciproxin
- In case of treatment failure: 3 months of inhaled antibiotics combined with oral ciproxin; consider intravenous antibiotic therapy

Chronic PA colonisation (until 1 year PA-negative)

- Stable clinical status: **on/off** therapy with inhalative antibiotics (1 month „on“, 1 month “off”)
- Worsening clinical status: **non-stop** therapy (1 month inhalative antibiotic followed by 1 month other inhalative antibiotic or 1 month inhalative antibiotic followed by 1 month oral ciproxin); consider intravenous antibiotic therapy

II. Antibiotics[6-9]

Doses of commonly used intravenous antibiotics against PA
Ceftazidime : 50-75 mg/kg q6h (max daily dose 12g)
Amikacin: 22-36 mg/kg q24h (max daily dose 1.5g)
Tobramycin: 7-10 mg/kg q24h (max daily dose 600mg)
Aztreonam: 50-75 mg/kg q6h (max daily dose 12g)
Meropenem: 60-120 mg/kg q8h (max daily dose 6g)
Piperacillin/Tazobactam: 75-100 mg/kg q8h (max daily dose 18g)

Doses of commonly used inhalative antibiotics against PA
Tobramycin (TOBI, Bramitop): 300 mg bd (licensed >6 years only)
Tobramycin iv solution (Obracin): 80mg bd (not licensed)
Colistin: 1 mio U bd (licensed >12 years only)

Doses of commonly used oral antibiotics against PA
Ciproxin: 15-20 mg/kg bd (max daily dose 1.5g)

N. Regamey, 05.06.2009

III. Efficacy control[6]

- Sputum or oropharyngeal swab 2 weeks after end of treatment, then at least 3-monthly
- Eradication achieved: repeated negative cultures (at least three) within a 6-month period

IV. Literature

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