# Cystic Fibrosis Hospital admission summary

**Date of admission**
**Date of discharge**
**Duration of admission**
**Consultant week:**

<table>
<thead>
<tr>
<th></th>
<th>Pre admission</th>
<th>Day 1</th>
<th>Day 7</th>
<th>Day 14</th>
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<tbody>
<tr>
<td><strong>Weight</strong></td>
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<tr>
<td><strong>FEV1 (%)</strong></td>
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<td><strong>FVC (%)</strong></td>
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<td><strong>Microbiology</strong></td>
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<table>
<thead>
<tr>
<th></th>
<th>Day 2</th>
<th>Next Tues/Fri Day</th>
<th>Next Tues/Fri Day</th>
<th>Next Tues/Fri Day</th>
<th>Next Tues/Fri Day</th>
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<tbody>
<tr>
<td><strong>Tobramycin levels</strong></td>
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Routine tobramycin levels should be taken Tuesdays and Fridays 18 hours after last dose (before 3pm weekdays; before 10am at weekends if necessary)

**Tick appropriate boxes**

- IV antibiotic treatment received. Which?
- Long line / portacath / cannulas
- Short course steroids
- New treatment(s) started
- IgE
- CRP
- Previous high Tobramycin dose / poor renal function
- Cough swab
- Induced sputum
- Overnight oxygen trace
- Glucose profiling (age >5)

**Consider**

- Diabetes team review
- CXR
- Bronchoscopy
- CT
- Annual review bloods / faecal elastase
- Liver ultrasound
- DEXA scan
- Psychology referral
- Research study. Which?  

**Comments and results**

CF_SpIT, CF-START
Patients with Cystic Fibrosis are usually admitted for intravenous antibiotics on Ocean Ward (those <2 years of age) or Land Ward (those >2 years of age). Patients who are known to isolate Burkholderia Cepacia are admitted to South Ward.

If in doubt check with either the CF Nurse Specialists or the Consultant.

- The patient should be clerked fully by the respiratory team junior staff. There is no proforma
- Inform the Dietetic and Physiotherapy teams of the patient admission.
- The nursing staff on the ward will usually insert the gripper needle for patients with a portacath in situ
- Patients without a portacath in situ should have a long line inserted by an experienced Specialist Registrar.

Baseline investigations on admission

- Weight (this must be plotted on the existing growth chart)
- Cough swab – send for MCS (CF lab protocol), fungal and AFB (may have already been done for patients admitted from clinic)
- Spirometry (note: this may have already been done for patients admitted directly from clinic)
- If FEV₁ is <70%, arrange overnight saturation trace in air with ward nursing staff
- Pre-meal glucose profiling for the first 24 hours of admission for all patients EXCEPT those under 5 years of age and those who are pancreatic sufficient.
- Blood tests on admission: U&E, creatinine, CRP and total IgE, HbA1C

- Blood tests should be documented on a flow sheet
- Weight / spirometry are measured and plotted twice weekly (Monday and Thursday before the ward round)
- The Admission Summary overleaf should be updated twice weekly before the ward round

- If a patient with Cystic Fibrosis loses their IV access during the night, do not attempt to resite a cannula. They can go without routine IV antibiotics overnight, and a long line can be sited the next day

First line intravenous antibiotics on admission

**Ceftazidime**
50 mg /kg three times a day with a maximum of 3g per dose.

**Tobramycin**
10 mg /kg as a single daily infusion over 30 minutes to a maximum of 660 mg.
U&E, creatinine must be taken AND CHECKED before the first dose of Tobramycin is given.
If the child is <1 month of age or has previously had high levels of Tobramycin use a dose of 7 mg / kg /day.

**Tobramycin levels**
These are taken on day 2, and on every Tuesday and Friday of the week thereafter.
There is usually no need to take levels at the weekend.

- If the child is unwell, please discuss when to start tobramycin with the consultant as this may be delayed to allow for adequate hydration
- If the child is well, try to have the first dose of tobramycin given at approximately 4pm on the day of admission. U&E, creatinine must be TAKEN AND CHECKED before the first dose of tobramycin is given
- The first tobramycin level is measured 18 hours after the first dose, together with U&E, creatinine (10am)
- Thereafter tobramycin levels should be taken with U&E and creatinine every Tuesday and Friday morning until discharge.

**Interpreting Tobramycin levels**
- If 18 hour tobramycin level is <1.0mg/l then continue current dose.
- If 18 hour tobramycin level is ≥1.0mg/l
  - Omit the dose
  - Repeat tobramycin level in a further 24 hours (10 am next day)
  - Tobramycin should only be restarted once levels are <1.0 mg/l
  - All future doses should be reduced by 20%.

- If the tobramycin level assay fails but U&E and creatinine taken at the same time are normal, the tobramycin dose may be given at the correct time, but a repeat level must be taken at 10am the next day. If this assay also fails, then the next tobramycin dose should be omitted.