You are bleeped to see an 11-year old girl Ellie admitted to A&E Department.

Ellie has been admitted from school via ambulance with increased secretions, low oxygen saturations and increased seizures. You are asked to review her in A&E for chest physio

HPC

One week history of increased secretions, requiring home oxygen of 0.5litres oxygen via NP, input from respiratory community physio team, requiring increased chest physio and suction at home and school, sputum samples from community grew rhinovirus and pseudomonas (chronically infected with this and on twice daily nebulised colomycin)

PMH

Dystonic bilateral Cerebral Palsy, GMFCS level 5

Global developmental delay

Microcephaly

Seizure disorder

Progressive scoliosis (previous spinal brace but doesn’t tolerate, has sleep system at home)

Gastrostomy fed

C02 retainer

DH

Sodium Valporate 320 mg twice daily  
Levetiracetam 600 mg twice daily   
Topiramate 80 mg twice daily  
Omeprazole 10 mg twice daily   
Chloral hydrate 5 mls for cluster of seizures   
Paraldehyde 15 mls as premix for prolonged seizures   
Nebulised colomycin 2megaunits twice daily

Glycopyrrolate 5 mgs twice daily

SH

Lives with mum

Attends local special needs school where she is regularly seen by school neuro physiotherapy team, who are her named physios. Ellie also has access to a community respiratory physiotherapy team who began a programme of chest physiotherapy including manual techniques two years ago. She is regularly reviewed by them and school staff perform the chest physio once daily when she’s there.

Observations

SV on 0.5litres oxygen, sa02=88% (normal parameters 85-95%)

Coarse crackles apically on auscultation

RR=32 with some indrawing at diaphragm and paradoxical breathing pattern noted

CXR and ABGs not back yet

Here are some questions to consider regarding the assessment and treatment

of this child in order to create an overall management plan

1. Are there any special considerations?

2. What else would you want to find out in your subjective assessment?

3. What would you look at in your objective assessment?

4. What are your treatment options and how would you structure the

treatment session (consider nebs etc)?

5. What outcome measures would you include?

6. What may predispose this patient to respiratory illnesses?

7. Thinking about getting it right for every child, is there anything you need to consider around the child when thinking of changing interventions or getting ready for D/C home?