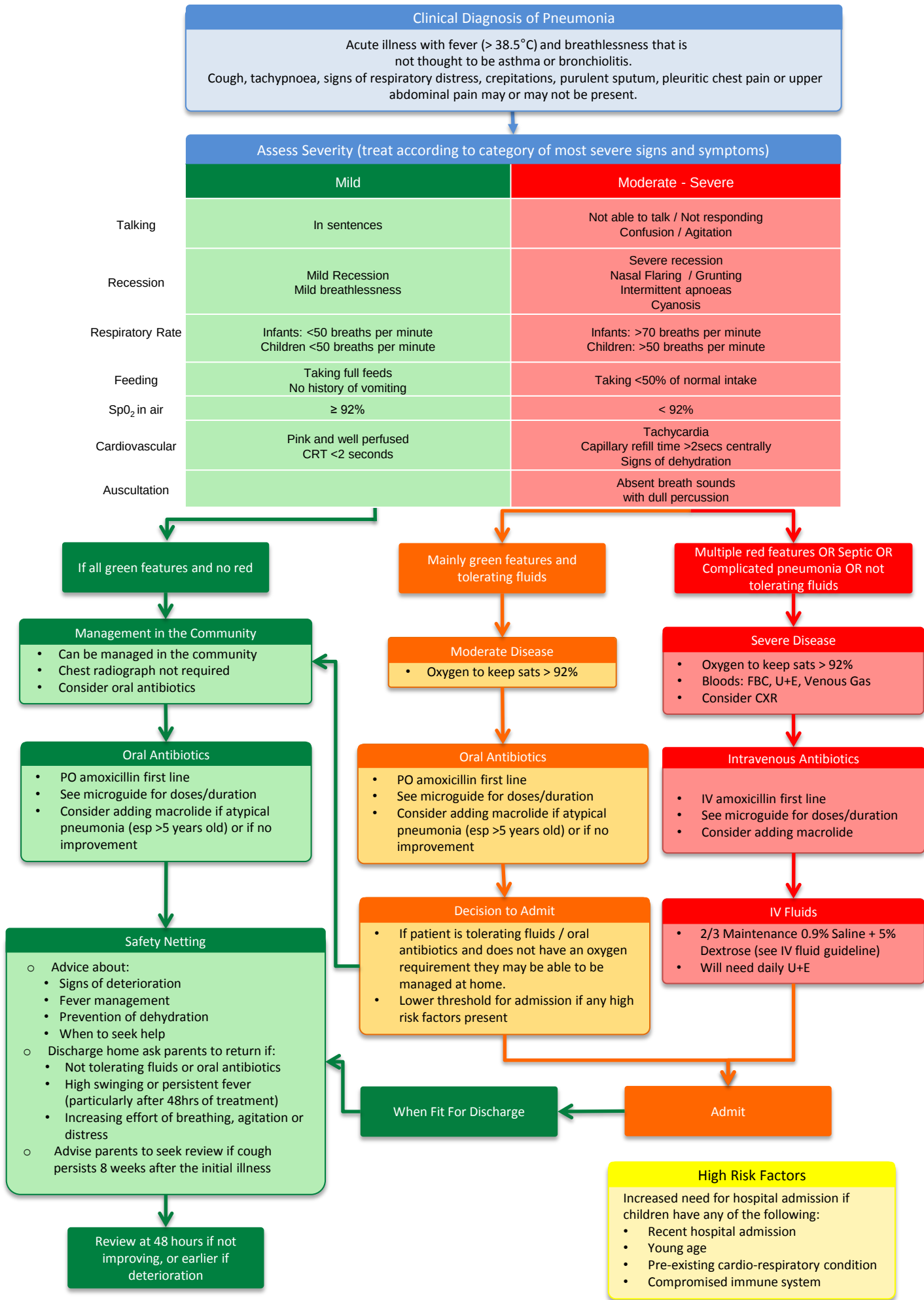




INVESTIGATIONS

Chest X-Ray

Should not be routine in children not admitted to hospital as:

- Poor correlation with clinical signs
- CXR is too insensitive to distinguish viral from bacterial aetiology

However as per the NICE Guideline “Feverish Illness in Children” there is a role for CXR in those aged less than three months with respiratory signs, and in older children with fever and no focus.

Other Investigations

Acute phase reactants are not useful in distinguishing viral from bacterial pneumonia

Microbiological investigation should not be routine.

ANTIBIOTICS

All children with a clear diagnosis of Community Acquired Pneumonia (CAP) should receive antibiotics as differentiating between bacterial and viral pneumonia clinically or radiologically is unreliable.

Oral Antibiotics

Oral antibiotics are safe and effective for even severe CAP.

Amoxicillin is recommended as first choice oral antibiotic. A macrolide can be used in penicillin allergy.

Oral Co-amoxiclav has not been shown to be superior to Amoxicillin except in CAP associated with influenza.

Macrolide antibiotics can be added if:

- There is no response to first line therapy after 48 hours
- Mycoplasma or Chlamydia is suspected (symptoms worse than the signs would suggest, insidious onset, chest pain, non-respiratory symptoms (e.g. arthralgia, headache, on-going malaise). Mycoplasma pneumonia is responsible for up to 40% of community-acquired pneumonia in children over five years of age but should also be considered in younger children³).
- In severe disease

Intravenous Antibiotics

IV antibiotics should be used when a child is unable to tolerate oral fluids / absorb oral antibiotics, or a child has signs of septicaemia or complicated pneumonia.

Consider broadening antibiotic cover with IV ceftriaxone if there is no improvement after 48 hours

Consider converting to oral treatment when there is clear evidence of improvement.

PROGRESS

Consider Transfer To PICU If:

- Failure to maintain oxygen saturations > 92% despite fractional inspired oxygen of > 60%
- Pneumonia complicated by septicaemia /Shock
- Rising respiratory and pulse rate with clinical evidence of severe distress and exhaustion, regardless of pCO₂
- Recurrent apnoea or slow irregular breathing

Re-evaluate If No Improvement In 48 hours

- Consider possible complications (e.g. sepsis, empyema, lung abscess, metastatic infection, haemolytic uraemic syndrome)
- Consider whether child is having appropriate drug treatment at an adequate dosage
- Consider possibility of underlying condition e.g. immunosuppression or cystic fibrosis.

FOLLOW-UP

Follow Up

If a child was previously healthy and is recovering well from CAP then no follow up is needed.

Parents should be instructed to see the GP after 6 – 8 weeks if the cough has not resolved.

Hospital out-patient follow up and rpt CXR should be arranged in cases of empyema, lobar collapse, round pneumonia

References

1. Harris et al. (2011) British Thoracic Society guidelines for the management of community acquired pneumonia in children: update 2011. Thorax 2011; 66: ii1 - ii23

2. Richardson et al. (2007). Feverish illness in children: Assessment and initial management in children younger than 5 years. NICE Guidance

3. Wang et al. (2012). Clinical symptoms and signs for the diagnosis of Mycoplasma pneumoniae in children and adolescents with community acquired pneumonia. Cochrane Database of Systematic Reviews

REVIEW					
Name	Revision	Agreed by	Date	Version	Review date
Craig McDonald, Ralph Robertson	New doc	General Paediatric Consultants	Nov 2015	1.0	Nov 2017
Rhiannon Furr	Antibiotics linked to microguide	General Paediatric Consultants	Feb 2018	2.0	Feb 2020