



The Development of Oxygen and Non-Invasive Ventilation Pathways in an Adult Cystic Fibrosis Centre

Aim To develop pathways for supplementary oxygen and the set up and management of Non-Invasive Ventilation (NIV) in an adult CF centre and assess their impact on patient care.

Rationale

- Cystic Fibrosis (CF) can lead to a decline in lung function and hypoventilation resulting in respiratory failure that may require supplementary oxygen and/or NIV.
- At the time of development, there were no published guidelines on the use of oxygen therapy in CF and no published pathways on the set up and management of supplementary oxygen or NIV in CF

Strategy and Changes

- An evaluation of the CF centre's NIV and oxygen services, patient demographics and clinical needs was conducted alongside a review of current guidelines.
- Interdisciplinary working groups were set up to produce the pathways. Patients were discussed at weekly CF team meetings where assessments and treatment plans were agreed.

Outcome

- There was an increase in the number of elective NIV set ups while the number of emergency NIV set ups reduced.
- The Oxygen pathway is used for all patients attending clinic or admitted to the ward to enable timely assessments to take place.
- Pathways facilitate continued patient monitoring.

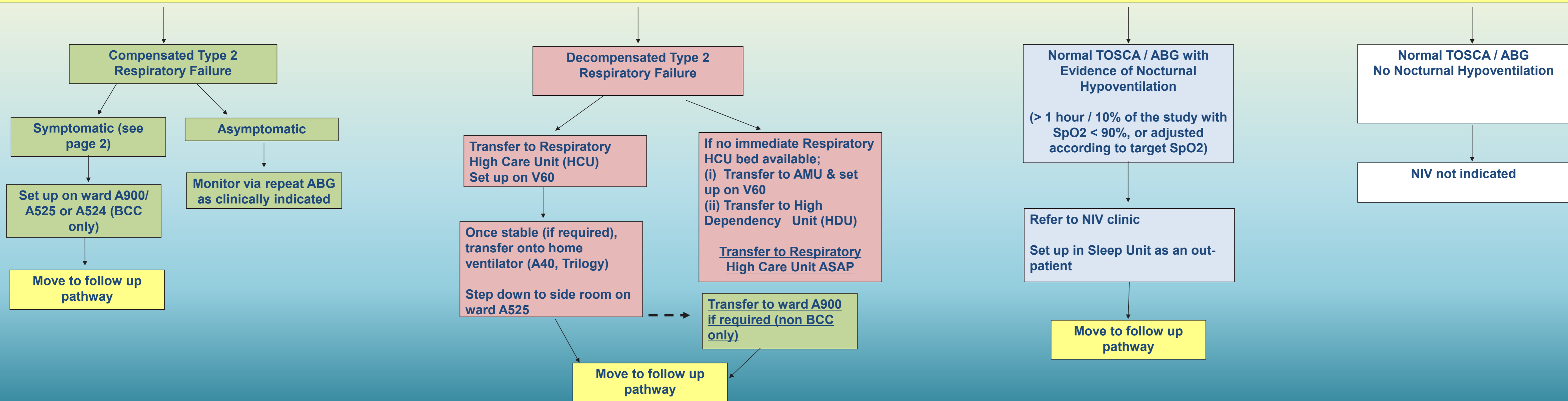
Evaluation

Collaborative working amongst the MDT enabled the development of the pathways. The oxygen pathway facilitated a more systematic and proactive approach to assessment and treatment planning. The NIV pathway has promoted a culture of proactive, elective set ups. There is greater patient involvement in both process. Future work on the pathways will include audits against the latest published guidelines.

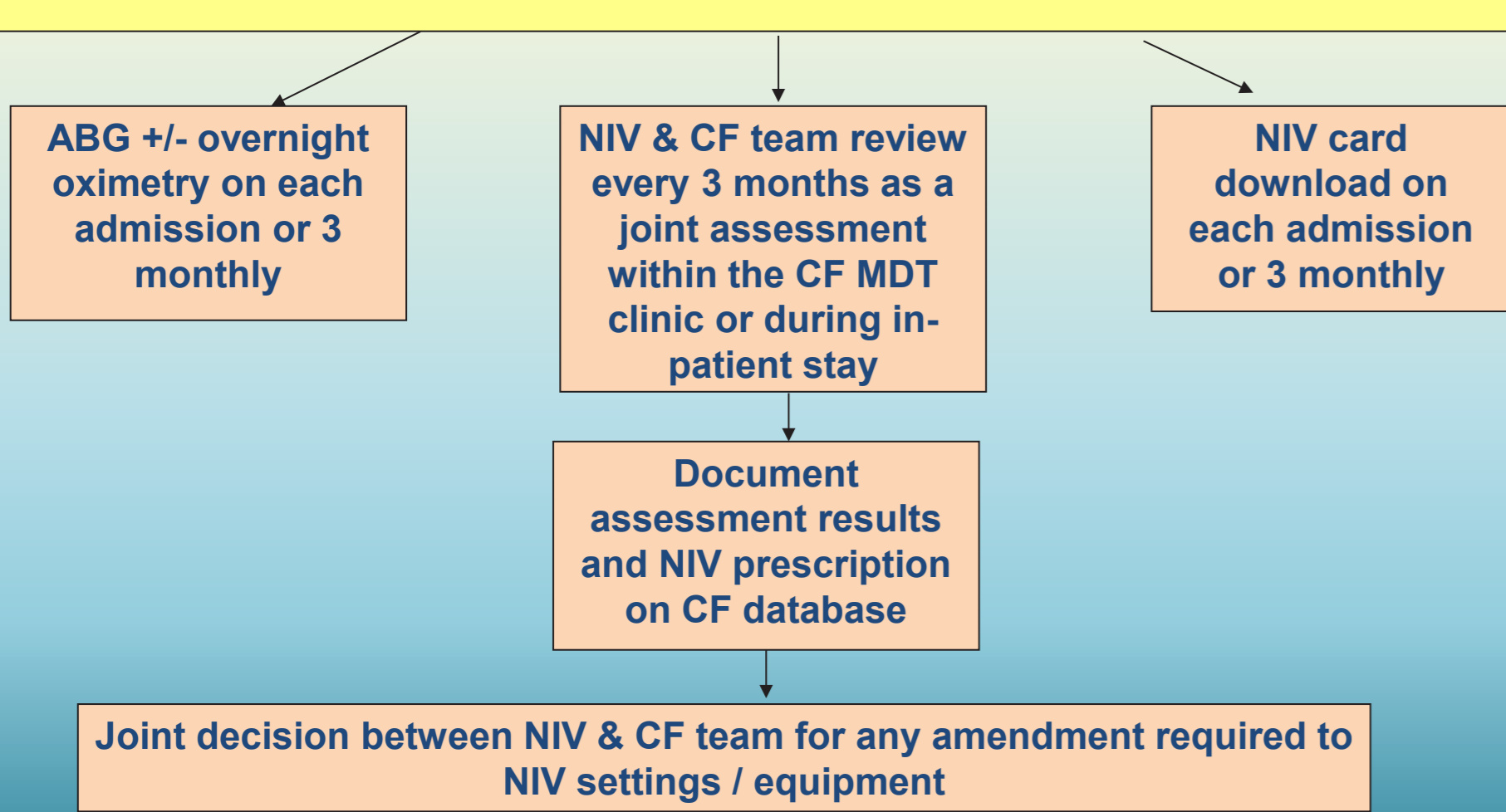
NIV Pathway (2016): ACUTELY UNWELL OR Demonstrates 2 of the following

- FEV₁ < 1 litre - Symptomatic (see appendix) - MRC dyspnoea score ≥ 4 - Requires oxygen as assessed following BACFC Oxygen Pathway

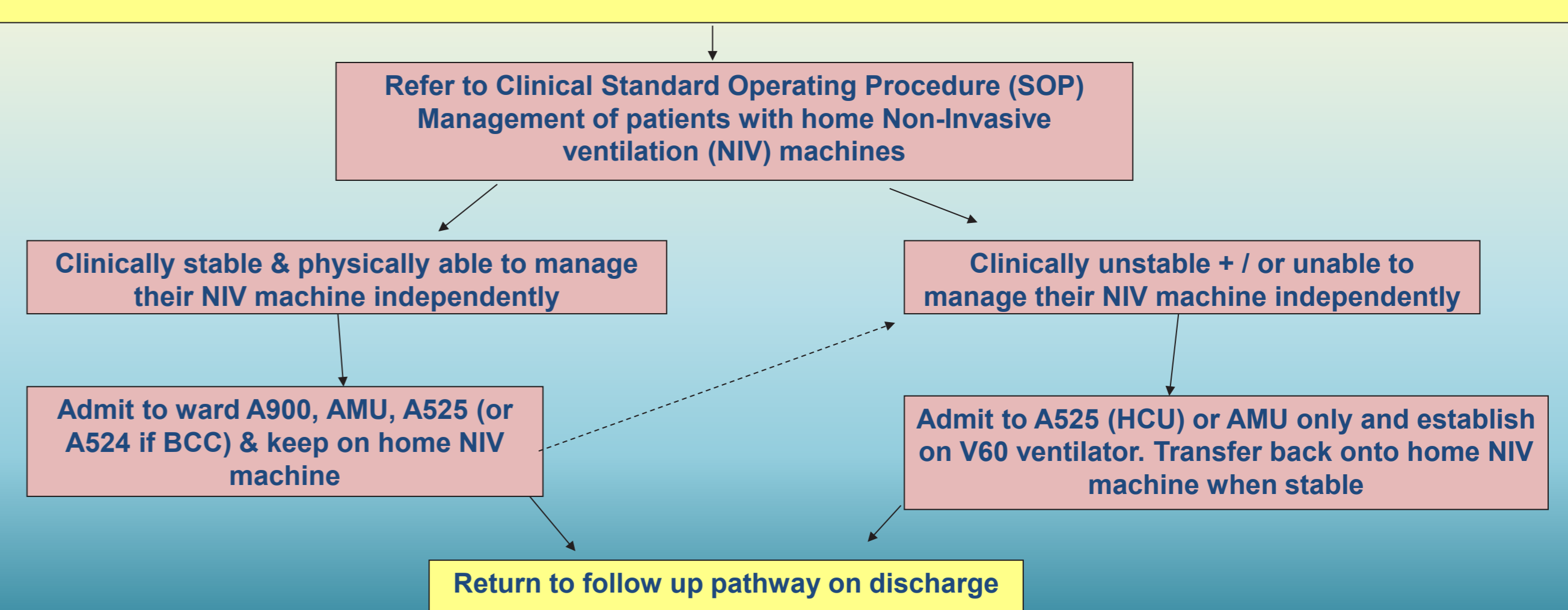
ABG/TOSCA



FOLLOW UP PATHWAY

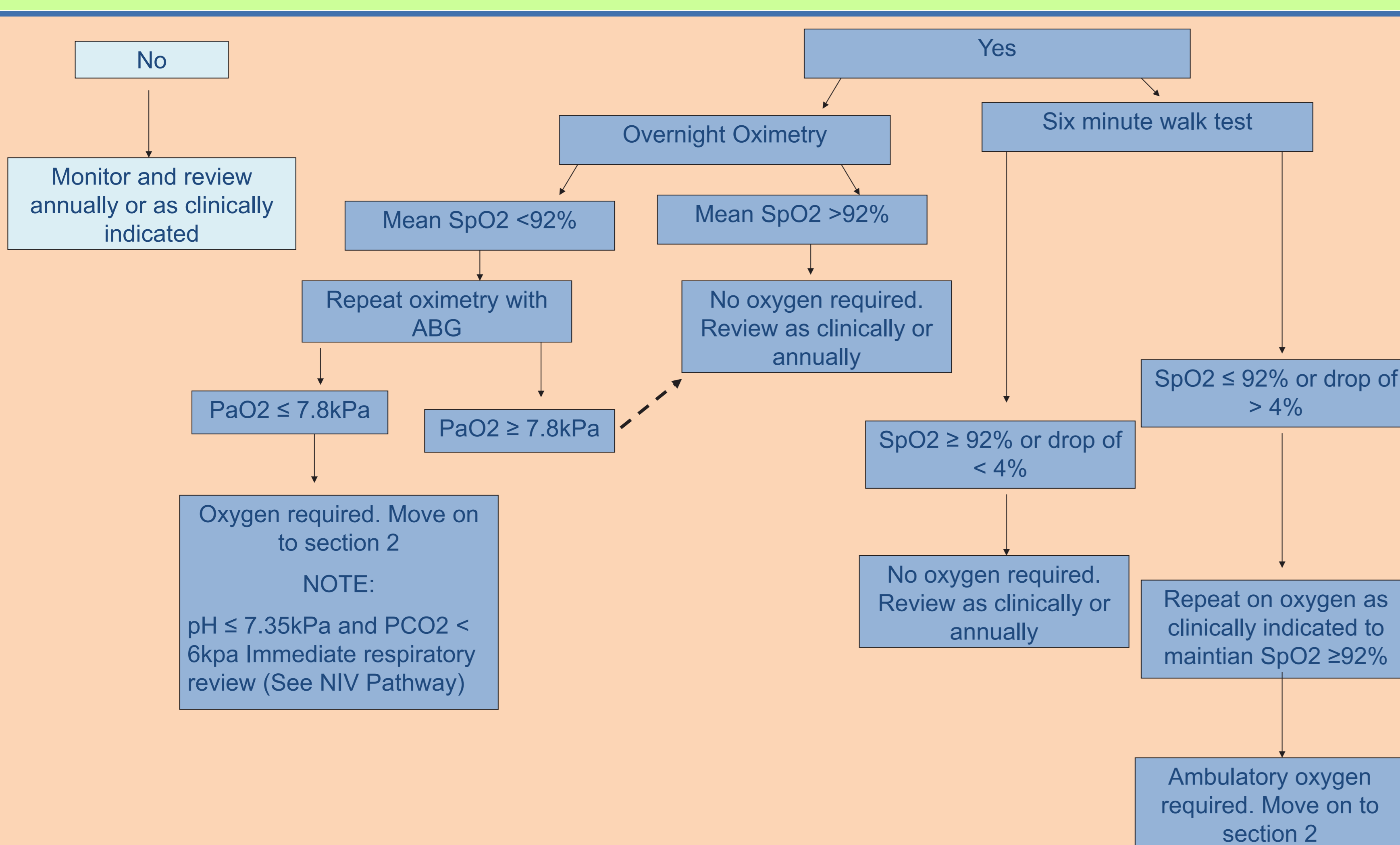


ADMISSION OF A PATIENT ALREADY ESTABLISHED ON HOME NIV



Oxygen Pathway : ASSESSMENT CRITERIA

- FEV₁ ≤ 40% - Hypoxemia (SpO₂ ≤ 92% at rest) when clinically stable - Exercise induced desaturation (SpO₂ ≤ 92% or drop >4% during exertion) - Also consider signs of respiratory distress



SECTION 2: OXYGEN THERAPY PLANNING

