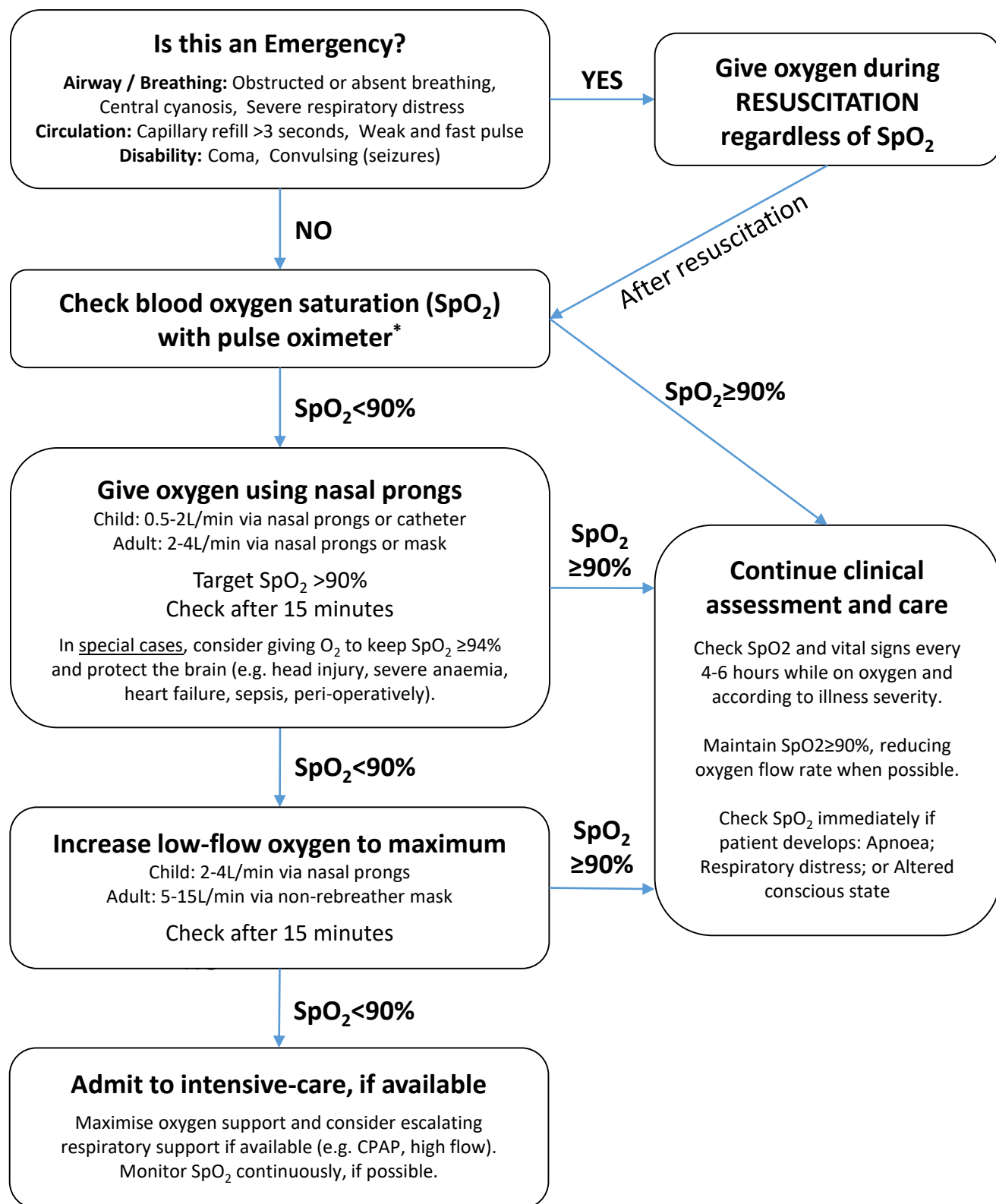


DOES THIS PATIENT NEED OXYGEN?



* If you do not have a pulse oximeter, use clinical signs:

central cyanosis, severe lower chest wall indrawing, RR ≥ 70 breaths per minute, inability to drink (due to respiratory distress), grunting with every breath, depressed mental state.

HOW TO PERFORM (AND TROUBLESHOOT) PULSE OXIMETRY

Prepare oximeter and patient

- Select appropriate probe for patient
- Connect probe to oximeter and turn oximeter on
- Tell the patient/parent what you are going to do
- Position the patient so they are comfortable (e.g. on parent's lap)

Attach probe to patient and wait

- Attach probe to a finger, toe, or ear
- Wait until there is a regular pulse signal (may take 20-30 seconds)

Troubleshoot

- Reposition probe
- Check circulation (if poor, resuscitate immediately)
- Check oximeter function on own finger
- Warm the finger or toe

Is there a good Pulse Signal (waveform)?

NO

recheck

YES

Read the SpO₂ - record SpO₂ on a monitoring chart

What is the SpO₂?

≥90%

<90%

Continue clinical assessment and care

Check SpO₂ and vital signs every 4-6 hours while on oxygen and according to illness severity.

Maintain SpO₂ ≥90%, reducing oxygen flow rate when possible.

Check SpO₂ immediately if patient develops: Apnoea; Respiratory distress; or Altered conscious state

Clean the nasal prongs each time you check the SpO₂ to keep them patent

In Emergencies give oxygen during resuscitation regardless of SpO₂ : obstructed/absent breathing, central cyanosis, severe respiratory distress, capillary refill >3 seconds, weak & fast pulse, coma, seizures.

In Special Cases give oxygen to keep SpO₂ ≥94% and protect the brain: head injury, meningitis, severe anaemia, heart failure, sepsis, peri-operatively.

Treat immediately if SpO₂ <90% (assume HYPOXIA until proven otherwise)

- Give oxygen: Child = 0.5-2L/min via nasal prongs or catheter; Adult = 2-4L/min via nasal prongs or mask
- Recheck SpO₂: record SpO₂, O₂ flow rate

Recheck the SpO₂?

≥90%

<90%

Increase O₂ therapy and recheck patient (it is essential to correct hypoxia)

Turn oxygen flow rate up to increase SpO₂ ≥90%

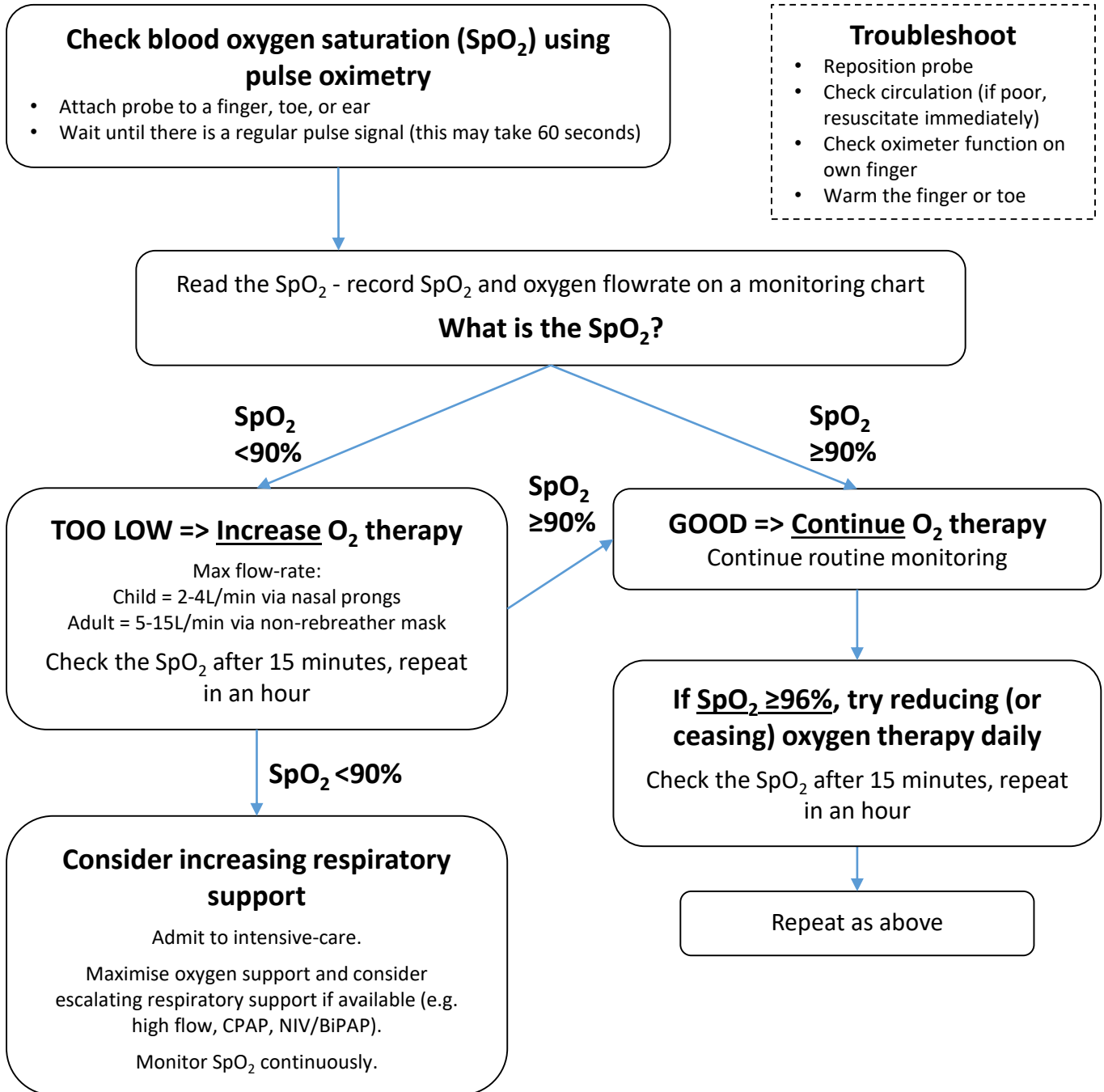
- Maximum rate: 4L/min for a child, 2L/min for an infant, 5-15L/min for an adult (non-rebreather mask).

If remains low

- Check equipment (oximeter and oxygen supply)
- Check patient airway, suction nose
- Check circulation
- Consider medical causes (e.g. pneumothorax, congenital heart disease)
- Consider extra respiratory support (e.g. CPAP)

MONITORING AND STOPPING OXYGEN THERAPY

Adults and Children (except preterm/small neonates)



Routine SpO₂ monitoring

Monitor SpO₂ and vital signs at least 4 times daily in all patients, and 4-6 hourly while on oxygen

- Aim to keep SpO₂ between 90-95% at all times
- Monitor more frequently in patients with severe respiratory distress (preferably continuously)
- Recheck SpO₂ immediately if patient develops apnoea, worsening respiratory distress, altered conscious state, or other signs of clinical deterioration
- Consider oxygen therapy to maintain SpO₂ ≥ 95% in special cases (e.g. severe anaemia, shock)

Document SpO₂ and oxygen flow rate on a monitoring chart

Clean the nasal prongs each time you check the SpO₂ to ensure they are patent

MONITORING AND STOPPING OXYGEN THERAPY

Preterm (<37 weeks GA), Small (birth weight <2000g)

Check blood oxygen saturation (SpO₂) using pulse oximetry

- Attach probe to a finger, toe, or ear
- Wait until there is a regular pulse signal (this may take 60 seconds)

Troubleshoot

- Reposition probe
- Check circulation (if poor, resuscitate immediately)
- Check oximeter function on own finger
- Warm the finger or toe

Read the SpO₂ - record SpO₂ and oxygen flowrate on a monitoring chart

What is the SpO₂?

<90%

90-95%

>95%

TOO LOW

Increase O₂ therapy

Max flow-rate = 2L/min via nasal prongs

Check the SpO₂ after 15 minutes, repeat in an hour.

GOOD

Continue O₂ therapy

Continue routine monitoring

TOO HIGH

Decrease O₂ therapy

Check the SpO₂ after 15 minutes, repeat in an hour.

Repeat as above

SpO₂ <90%

Consider increasing respiratory support

Maximise oxygen support and consider escalating respiratory support if available.
(e.g. CPAP, high flow)

Monitor SpO₂ continuously.

Routine SpO₂ monitoring

Monitor SpO₂ and vital signs at least 4 times daily in all patients, and 4-6 hourly while on oxygen

- Aim to keep SpO₂ between 90-95% at all times
- Monitor more frequently in patients with severe respiratory distress (preferably continuously)
- Recheck SpO₂ immediately if patient develops apnoea, worsening respiratory distress, altered conscious state, or other signs of clinical deterioration
- Consider oxygen therapy to maintain SpO₂ ≥95% in special cases (e.g. severe anaemia, shock)

Document SpO₂ and oxygen flow rate on a monitoring chart

Clean the nasal prongs each time you check the SpO₂ to ensure they are patent