Lessons from the frontline

paediatric WATCH

Stop, Reflect & Review

Case 1

A 6-year-old girl presented to the Emergency Department (ED) with decreased oral intake and a one-week history of diarrhoea. At triage, the patient was pale and drowsy, with oxygen saturations of 88% in room air (Red Zone), mild intercostal recession (Yellow Zone), Blood Pressure (BP) in the Yellow Zone and a Glasgow Coma Score (GCS) of 12. The patient had a history of prematurity and an unrepaired atrial septal defect. Hudson mask oxygen was applied and oxygen saturations improved to 96-98%.

Although no wheeze was heard on auscultation, a provisional diagnosis of asthma was given and inhaled salbutamol was administered. The patient was then monitored for a period of 2 hours in the ED and while the patient was on oxygen her heart rate, respiratory rate, BP and oxygen saturations were 'between the flags'. There was no further documentation of a GCS following triage. Oxygen therapy was weaned off and the patient was observed for another 10 minutes, where she maintained oxygen saturations of 95% during this period. No further observations were taken and the patient was then discharged home. The parent was instructed to represent if they had ongoing concerns, or if the patient further deteriorated.

Approximately 3 hours following discharge home, the patient was found in her bed unresponsive. An ambulance was called and the patient was assessed to be in cardiorespiratory arrest and resuscitation was commenced. Despite resuscitation efforts, there was no return of spontaneous circulation and the patient died.

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The Paediatric Patient Safety Program works across a range of areas to improve the quality and safety of health care for children and young people in NSW.

Lessons Learnt

Patients presenting to the ED with abnormal observations should be monitored for an appropriate period of time and re-assessed prior to discharge to ensure it is safe to do so. The Royal Children's Hospital Melbourne recommend when weaning oxygen therapy, all observations should be within normal limits, the patient is feeding adequately, and should be alert, pink and behaving normally[1].

In the ED setting, it is a requirement that all children have a set of observations within one hour prior to discharge[2]. If supportive treatment, such as oxygen, has been used, make sure that the child is stable, off treatment, and well enough for discharge by repeating observations after an appropriate period - usually at least one hour.

Primary responsibility for determining if a patient is 'safe for departure' rests with the senior medical and nursing staff in the ED. The Paediatric ED 'Departure and Discharge from ED' checklists on the observation chart, or in the eMR form, provide an opportunity to identify any concerns or risks prior to discharge home[3].

Case 2

A 4-month-old baby presented to the ED with a history of a barking cough, lethargy and decreased oral intake. Although the patient's heart rate, respiratory rate, temperature and oxygen saturations were 'between the flags', it was reported that the child was unwell looking, lethargic and looked small for their age. A diagnosis of croup was made and the baby was treated with oral steroids which was to be repeated in 12 hours' time.

The patient was discharged one hour after presentation, and the family were advised to represent if the child's condition worsened.

Approximately 12 hours after discharge, the child was found in their cot cold, mottled and unresponsive. The patient was brought to ED in cardiorespiratory arrest and resuscitation was commenced. Despite resuscitation efforts, the patient died.

Lessons Learnt

A post mortem report revealed the patient died of sepsis secondary to a bacterial pneumonia. Whilst the patient presented with observations 'between the flags', the diagnosis of croup for an infant of that age is unusual. In cases, such as this, where the diagnosis does not fit the typical picture, including for age and assessment, an alternative differential diagnosis should be actively pursued. Escalating care to a senior clinician for a second opinion in such cases is a safe diagnostic strategy in mitigating diagnostic error.

In the ED setting, repeated observations over time is critical to ensure subtle signs or cues of illness are detected for any patient who does not fit the typical diagnostic criteria[2]. This is particularly important when assessing the efficacy of treatment prior to discharging a patient home.

The minimum core physiological observations are to include respiratory rate, respiratory distress, oxygen saturation, heart rate, temperature, level of consciousness and pain score, and are to be recorded at the time the observations are taken[2]. The patient's observations should be 'between the flags' prior to discharge from hospital, unless the Senior Medical Officer identifies a safe clinical reason for discharge, such as oxygen saturations greater than or equal to 92% in patients diagnosed with bronchiolitis[3,4].

References

1. Royal Children's Hospital Melbourne, 2017, Oxygen Delivery - Clinical Guideline (Nursing), viewed 18 May 2018,<https://www.rch.org.au/rchcpg/hospital_clinical_guideline_index/Oxygen_delivery/#Weaning%20Oxygen>
2. Recognition and Management of Patients who are Clinically Deteriorating, viewed 23 May 2018, <http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2013_049.pdf>
3. New South Wales Health, 2014, Departure of Emergency Department Patients, viewed 18 May 2018, <http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2014_025.pdf>
4. New South Wales health, 2018, Acute Management of Bronchiolitis, viewed 21 September 2018, <https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2018_001.pdf>

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