### Anaphylaxis during Anaesthesia

#### Differential Diagnosis Card

#### Possible Causes & Actions

**Cardiac Arrest**
- Hypoxia
- Hypovolaemia
- Hypo/hyperkalaemia/metabolic disorders
- Hypo/hyperthermia
- Tension pneumothorax (Decompress)
- Tamponade
- Toxins
- Thrombosis: pulmonary or coronary

**High Airway Pressure/Airway Compromise**
- Dyspnoea, wheeze, stridor, difficulty inflating lungs
- Oesophageal intubation → “No Trace = Wrong Place”
- Circuit malfunction → Check using Self Inflating Bag
- Misplaced/kinked Airway device → Check with suction catheter/Consider changing device
- Tension pneumothorax → Decompress
- Exacerbation of Asthma → Treat as per Refractory Management
- Foreign Body → Consider bronchoscopy
- Acid aspiration → Consider bronchoscopy

**Hypotension**
- Hypovolaemia
- Sepsis
- Drug overdose
- Vasodilation by drugs
- Neuraxial blockade
- Embolism: Thrombotic, Air or Amniotic
- Vasovagal

**Skin and Mucosa**
- Hives, flushing, erythema, urticaria, swelling head and neck or peripheries
- Direct Histamine Release
- Venous obstruction
- Head down position
- C1-esterase deficiency (Angioedema only)
- Mastocytosis
- Cold induced anaphylaxis

**Absence of tachycardia or cutaneous signs does not exclude anaphylaxis**
Anaphylaxis is usually rapid in onset but is occasionally delayed

**Mild (Grade 1)**
- Generalised mucocutaneous signs: Erythema, Urticaria+/- Angioedema

**Moderate (Grade 2)**
- Moderate – Multi-organ manifestation may include:
  - Hypotension, tachycardia
  - Evidence of bronchospasm, cough, difficult ventilation
  - Mucocutaneous signs

**Life Threatening (Grade 3)**
- Life Threatening and requiring immediate and specific treatment:
  - Severe hypotension
  - Bradycardia or tachycardia, arrhythmias
  - Severe bronchospasm, and/or airway oedema
  - Cutaneous signs may be absent, or present only after correction of hypotension

**Arrest (Grade 4)**
- Cardiopulmonary Arrest