Superior Vena Cava Obstruction (SVCO)

**Definition** - SVCO is an obstructive emergency that may occur as the result of progression of a malignancy or may be the diagnostic symptom. Common causes are lung cancer and lymphoma in a young person. SVCO is caused by external pressure, thrombus or direct tumour invasion causing obstruction of the superior vena cava.

**Recognition** - Patient with Symptoms/Signs: Dyspnoea; stridor, due to laryngeal oedema; dilated anterior chest wall veins; swelling of face and neck; non-pulsatile JVP; chest pain; headaches; coma; confusion

Patient may have a current cancer diagnosis/a history of cancer / a new cancer (If young patient (lymphoma likely diagnosis), MUST be URGENTLY discussed with Haematology team before starting steroids )

**Assessment** - Baseline observations, assess respiratory distress, e.g. o2 sats, consider ABG, CXR and CT chest

**Response** - Treatment options are Dexamethasone, stent, radiotherapy and urgent chemotherapy depending on cancer type and grade of SVCO

**TIP:** If treating with Dexamethasone Check diabetes risk and regular glucose monitoring
**Dexamethasone (SVCO) Tip**

Prescribe 16 mg of dexamethasone to patients with **suspected SVCO** (unless contraindicated, including a significant suspicion of lymphoma) and continue dexamethasone 8 mg BD while treatment is being planned.

After start of treatment, gradually reduce the dose according to your local hospital policy (or if no policy, consider halving the dexamethasone dose every 4 days until stop. If neurological function deteriorates, consider increasing the dexamethasone dose temporarily.

In patients with SVCO who do not proceed to treatment after planning, gradually reduce the dose and stop dexamethasone.

<table>
<thead>
<tr>
<th>Grade 1 (Green)</th>
<th>Grade 2 (Amber)</th>
<th>Grade 3 (Red)</th>
<th>Grade 4 (Red)</th>
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<tbody>
<tr>
<td>Oedema in head or neck (vascular distension); cyanosis; plethora</td>
<td>Oedema in head or neck with functional impairment (mild dysphagia, cough, visual disturbances)</td>
<td>Mild or moderate cerebral oedema (headache, dizziness) or mild/moderate laryngeal oedema or diminished cardiac reserve (syncope after bending)</td>
<td>Significant cerebral oedema (confusion) or significant laryngeal oedema (stridor) or significant haemodynamic compromise</td>
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**Response for Grades 1 or 2**

1. Treat and underlying chest complaints; COPD, sepsis and check if currently on any anti-cancer therapy and the toxicity risk. Could link to key question, has your patient received chemotherapy in the last six weeks?

2. Consider dexamethasone 4-8mg BD (see below for guidance on prescribing steroids).

3. If a new diagnosis of lung cancer – URGENT CANCER referral to local chest clinic and request CT scan. If known cancer and discharged please contact the lung cancer team or AOS to ensure appropriate FUA.

**Response for Grades 3 or 4**

1. As per grade 1 & 2.

2. Likely to require admission if grade 3, particularly if evidence of:
   - Desaturation
   - Infection
   - Other chemotherapy toxicities.

3. Start Dexamethasone 8mg BD with PPI cover.
   (n.b. young patient with no diagnosis d/w Haematology on-call prior to starting steroids)
   Hyperlink Dexamethasone (SVCO).

4. Stent is likely to be treatment of choice.
   Occasionally chemotherapy or radiotherapy may be indicated. Urgent referral to Chest team and/or AOS and consider palliative care. If untreatable SVCO needs end of life care.

5. If discharged and new diagnosis of lung cancer - URGENT CANCER referral to local chest clinic & request CT. If known cancer & discharged please contact lung cancer team or AOS to ensure appropriate FUA.