Appendix 1
Vermont-Oxford Network (VON) database definitions

**Sepsis** - Positive blood culture (per VON definition)

**Retinopathy of Prematurity (ROP)** - documented by ophthalmologist

*Zone* - the location of the retinopathy within the retina

- Zone 1, the central zone at the posterior pole of the eye, has a radius of twice the distance from the optic disc to the macula and subtending an arc of 60 degrees centered on the disc.
- Zone 2 forms a circle outside zone 1 with a radius from the optic nerve to the nasal ora serrata.
- Zone 3 is the remaining temporal crescent of retina.

*Stage* - severity of involvement

- Stage 1 consists of a flat white line that demarcates the vascular and avascular retina
- In stage 2, a ridge of fibrous tissue protrudes into the vitreous in the region between the vascular and avascular retina
- In stage 3, new blood vessels and fibrous tissue grow along the ridge and often extend into the vitreous
- Stage 4 signifies a partial retinal detachment. It is further subdivided into stages 4A and 4B, depending upon whether the detachment excludes or includes the macula, respectively
- Stage 5 denotes a total retinal detachment

**Necrotizing Enterocolitis (NEC): Bell staging criteria**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Classification</th>
<th>Systemic Signs</th>
<th>Abdominal Signs</th>
<th>Radiographic Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA</td>
<td>Suspected</td>
<td>Temperature instability, apnea, bradycardia, lethargy</td>
<td>Gastric retention, abdominal distention, emesis, heme-positive stool</td>
<td>Normal or intestinal dilation, mild ileus</td>
</tr>
<tr>
<td>IB</td>
<td>Suspected</td>
<td>Same as above</td>
<td>Grossly bloody stool</td>
<td>Same as above</td>
</tr>
<tr>
<td>IIA</td>
<td>Definite, mildly ill</td>
<td>Same as above</td>
<td>Same as above, plus absent bowel sounds with or without abdominal tenderness</td>
<td>Intestinal dilation, ileus, pneumatosis intestinalis</td>
</tr>
<tr>
<td>IIB</td>
<td>Definite, moderately ill</td>
<td>Same as above, plus mild metabolic acidosis and thrombocytopenia</td>
<td>Same as above, plus absent bowel sounds, definite tenderness, with or without abdominal cellulitis or right lower quadrant mass</td>
<td>Same as IIA, plus ascites</td>
</tr>
</tbody>
</table>
### IIIA
- Advanced, severely ill, intact bowel
- Same as IIB, plus hypotension, bradycardia, severe apnea, combined respiratory and metabolic acidosis, DIC, and neutropenia
- Same as above, plus signs of peritonitis, marked tenderness, and abdominal distention
- Same as IIA, plus ascites

### IIIB
- Advanced, severely ill, perforated bowel
- Same as IIA
- Same as IIA
- Same as above, plus pneumoperitoneum

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**Intraventricular Haemorrhage (IVH):** (according to radiologists assessment)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description on Parasagittal View</th>
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<tbody>
<tr>
<td>I</td>
<td>Germinal matrix hemorrhage only</td>
</tr>
<tr>
<td>II</td>
<td>Intraventricular hemorrhage, 10 to 50 percent of ventricular area</td>
</tr>
<tr>
<td>III</td>
<td>Intraventricular hemorrhage involving more than 50 percent of ventricular area; lateral ventricles are usually distended</td>
</tr>
<tr>
<td>IV</td>
<td>Parenchymal hemorrhage in any location</td>
</tr>
</tbody>
</table>

**Tachycardia:** > 20% change from baseline pre-transfusion.

**Bronchopulmonary Dysplasia (CLD):** GA less than 32 weeks and requiring supplemental oxygen for greater than or = to 28 days. Mild BPD consists of room air at 36 week corrected GA or at discharge; moderate to severe consists of continued oxygen requirement at 36 week corrected GA or at discharge.

**Organ failure:** Lactic acidosis, oliguria, obtundation, ARF, hypotension.

**Fever:** Rectal temperature > 38.1.