

# PAEDIATRIC H+E

|                            |  |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
|----------------------------|--|--|--|---|-----------|--|--|----|-----|-------|---------|-------|----|--|--|--|--|--|-------------|--|--|--|--|--|-----|--|--|--|--|--|-----------|--|--|--|--|--|
| HPS (collateral)           | <ul style="list-style-type: none"> <li>Onset → Duration → Severity (ADL)</li> <li>Course: worsening? → relieving factors (e.g. Panadol, rest?)</li> <li><b>Triggers:</b> food, smells, exercise? what were they doing at the time?</li> </ul>  |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| Head to Toe                | HEENT  | <ul style="list-style-type: none"> <li><b>Headaches?</b> (recent trauma)</li> <li>Blurred/blind <b>vision?</b> Sore eyes? Red eyes?</li> <li>Pulling ears? Hx of recurrent <b>ear infections?</b> Aural discharge?</li> <li>•</li> </ul>   |  |   | Abdomen   | <ul style="list-style-type: none"> <li><b>A/ N/V</b> - ?food, ?bile, ?coffee-ground, ?blood</li> <li><b>Pain</b> - GE, SBO, ISS, hernia, appendicitis, cholecystitis, mesenteric adenitis, testicular/ovarian torsion</li> <li><b>Distension</b></li> <li><b>Jaundice</b></li> <li><b>D + C</b> - quality (wet vs loose), frequency, volume, character (what is in it? - food, blood, feaces)</li> </ul> |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
|                            |  | <ul style="list-style-type: none"> <li><b>Epistaxis + discharge</b></li> <li><b>Snoring?</b></li> <li>Breathing through mouth?</li> <li><b>Foreign body</b></li> </ul>   |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
|                            | Mouth/ throat  | <ul style="list-style-type: none"> <li><b>Dysphagia</b></li> <li><b>Sore throat</b> -red, exudative?</li> <li>Brush teeth after eating? - dental cavities</li> </ul>   |  |   | GU        | <ul style="list-style-type: none"> <li><b>Haematuria</b> - nephritic syndrome (e.g. IgA nephropathy, PIGN)</li> <li><b>Polyuria</b> - DM? Psychogenic? Eneuresis (&gt; 5, altered behaviour)</li> <li><b>Dysuria</b> - UTI?</li> </ul>   |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
|                            |  | <ul style="list-style-type: none"> <li><b>Lymphadenopathy</b> - infection, autoimmune, primary vs secondary malignancy</li> <li><b>Thyroid</b> - goitre (hashimotos, thyroiditis)</li> </ul>   |  |   | Gynae     | <ul style="list-style-type: none"> <li><b>HMB</b> - endometriosis</li> <li><b>Dysmenorrhoea</b> - Endometriosis</li> <li><b>Irregular menstrual cycles</b> - PCOS</li> </ul>   |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
|                            | Chest  | <ul style="list-style-type: none"> <li><b>Palpitations</b> - rate (SVT), rhythm (AF), CHD</li> <li><b>Chest pain</b> - PE, pneumothorax, MSK, GORD</li> <li><b>SOB</b> after exercise, environmental exposure → ?asthma, anaphylaxis</li> <li><b>Cough</b> - wet vs dry (freq, duration)</li> <li><b>Stridor vs wheeze</b> <ul style="list-style-type: none"> <li>Prolonged exp. (lower airway) = asthma</li> <li>Prolonged insp (upper airway) = viral croup</li> <li>Grunting = RDS (air forced against closed glottis to keep alveoli open)</li> </ul> </li> <li><b>Coryza</b> <ul style="list-style-type: none"> <li>Wheeze + coryza + SOB + fine insp. crackles = bronchiolitis</li> </ul> </li> <li><b>Crackles</b> <ul style="list-style-type: none"> <li>Early insp (abrupt opened large airways)</li> <li>Late insp (terminal bronchioles → alveoli) = pneumonia, pneumonitis, bronchiolitis</li> </ul> </li> </ul> |  |   | Endocrine | <ul style="list-style-type: none"> <li><b>Polydipsia</b> - DM?</li> <li><b>Fatigue/malaise</b> - endocrine (e.g. hypothyroid, acromegaly)</li> </ul>   |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
|                            |  | <ul style="list-style-type: none"> <li><b>Gait</b> - coordination</li> <li><b>Upper vs lower limb weakness</b> and/or numbness</li> <li><b>UMN vs LMN lesion</b> (spasticity, hypertonia, reduced power hyperreflexia, +ve Babinski)</li> </ul>  |  |   | Neuro     | <ul style="list-style-type: none"> <li><b>Rashes</b> (itchy?) - atopic vs contact dermatitis, eczema, impetigo</li> <li><b>Petechiae and bruises</b> - thrombocytopenia, meningitis, cushing's</li> <li><b>Abrasions/cuts</b></li> </ul>   |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
|                            |  | <ul style="list-style-type: none"> <li><b>Skin</b></li> </ul>  |  |   | Skin      | <ul style="list-style-type: none"> <li><b>Rashes</b> (itchy?) - atopic vs contact dermatitis, eczema, impetigo</li> <li><b>Petechiae and bruises</b> - thrombocytopenia, meningitis, cushing's</li> <li><b>Abrasions/cuts</b></li> </ul>   |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
|                            |  | <ul style="list-style-type: none"> <li><b>Blackout</b> (syncope), <b>standing up</b> (orthostatic), <b>upsetting event</b> (vasovagal), <b>DM</b> (hypoglycaemia), <b>vertigo</b></li> </ul>   |  |   |           | <b>Foetal Health - check blue book</b> <ul style="list-style-type: none"> <li>Foetal morphology scan result</li> <li>Aneuploidy (down's, patau's)</li> <li>Congenital HD</li> <li>Newborn spot test</li> <li>Need for SCU/NICU admission</li> </ul>  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| Antenatal Hx               | <p><b>Maternal Health</b></p> <ul style="list-style-type: none"> <li>Maternal ABO + Rh factor</li> <li>Birth Wt (GA vs pre-term) + delivery mode <ul style="list-style-type: none"> <li><b>Stuck</b> = clavicle fracture, Erb's palsy (C5/6), Klumpke (C8/T1)</li> <li><b>Forceps</b> = facial palsy, cephaloheamatoma (2<sup>o</sup> jaundice)</li> <li>C/S = laceration, Transient tachypnoea of newborn, MAS</li> </ul> </li> <li><b>Complications of delivery (APGAR, Asphyxia)</b></li> <li><b>Complications of pregnancy</b> (GBS, GDM, pre-eclampsia, TORCH, STI - Maternal fever)</li> </ul> |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| Psychosocial + Development | <p><b>Feeding (BF or EBM or solids)</b></p> <ul style="list-style-type: none"> <li><b>Duration</b> &lt; 20 mins</li> <li><b>Freq</b> 6-8x/day</li> <li><b>Fluid Intake</b><br/>100-150mL/kg/24 hrs (&lt; 10kg baby)<br/># of wet nappies?<br/>TOP-Ups?</li> </ul>  | <p><b>Screen dev/social interactions: (4)</b></p> <ul style="list-style-type: none"> <li>Weight, height and head circumference (FTT, failure to grow)</li> <li><b>Gross motor</b> (life head → roll → crawl → walk → run → climb stairs)</li> <li><b>Fine motor</b> (grasp → pincer grip)</li> <li><b>Language</b> (receptive → 1-2 words → sentences)</li> <li><b>Social</b> (Smiles → simple gesture → group play)</li> </ul>  | <p><b>Common concerns @ different ages</b></p> <ul style="list-style-type: none"> <li><b>Babies</b> → Crying / settling / Feeding</li> <li><b>Toddlers</b> = Sleep issues / Behaviour issues / tantrums / Toilet training <ul style="list-style-type: none"> <li><b>Encopresis + bed wetting</b></li> </ul> </li> <li><b>School aged</b> → Learning difficulties + Bullying</li> </ul> |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| Meds IUTD Allergy          | <ul style="list-style-type: none"> <li><b>Regular meds + OTC?</b> E.g. paracetamol, ibuprofen, SSRIs</li> <li><b>Herbals?</b> - St John's wort, rescue remedy</li> <li><b>Past surgeries (e.g. appendectomy, tonsillectomy, wisdom teeth/dental)</b></li> <li><b>Immunisation</b> (flu, whooping cough, hep B) → <b>CHECK BLUE BOOK + CURRENT VACCINATION STATUS!! (inc. MMR, DPT)</b> <ul style="list-style-type: none"> <li><b>Ask why not vaccinated? E.g. COVID-19</b></li> </ul> </li> <li><b>Allergies + reaction (i.e. rash, anaphylaxis)</b></li> </ul>                                      |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| FHx                        | <ul style="list-style-type: none"> <li>Diabetes</li> <li>Asthma / Atopy</li> <li>Epilepsy</li> <li>Early cardiac death (HOCM, Brugada, Long QT syndrome, WPW)</li> <li>Cancers</li> </ul>  |  |  | <table border="1"> <tr> <td></td><td>EU</td><td>Jew</td><td>Asian</td><td>African</td><td>Medit</td></tr> <tr> <td>CF</td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>Thalassemia</td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>SMA</td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>Fragile X</td><td></td><td></td><td></td><td></td><td></td></tr> </table> |           |  |  | EU | Jew | Asian | African | Medit | CF |  |  |  |  |  | Thalassemia |  |  |  |  |  | SMA |  |  |  |  |  | Fragile X |  |  |  |  |  |
|                            | EU   | Jew  | Asian  | African   | Medit     |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| CF                         |  |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| Thalassemia                |  |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| SMA                        |  |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| Fragile X                  |  |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| SHx                        | <ul style="list-style-type: none"> <li><b>H OME</b> - married, siblings, other relatives living at home</li> <li><b>E DUCATION + E MPLOYMENT</b></li> <li><b>E ATING and EXERCISE</b></li> <li>A <b>CTIVITIES</b> with/without peers → how are things at school? At home?</li> </ul>   |  |  | <ul style="list-style-type: none"> <li><b>Smoking</b>, A LCOHOL and DRUGS - at home / outdoors</li> <li><b>D EPRESSION</b> and</li> <li><b>SUICIDALITY</b> - self-harm, suicidal ideation</li> <li><b>S EXUALITY</b> - any friends, exposure to sexual content</li> <li><b>Social media</b></li> </ul>  |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |
| F/U                        | <p><b>Discuss about family planning</b></p> <ul style="list-style-type: none"> <li>Contraception</li> <li>What kind of home are they returning to?</li> <li>Domestic violence</li> <li>When is Next pregnancy? (e.g. high risk another pre-term pregnancy)</li> </ul>  |  |  |   |           |  |  |    |     |       |         |       |    |  |  |  |  |  |             |  |  |  |  |  |     |  |  |  |  |  |           |  |  |  |  |  |

# FEVER (must exclude sepsis)

|                       |  |  |
|-----------------------|--|--|
| Epi                   | <ul style="list-style-type: none"> <li>• Serious infection = most common in &lt; 3 mths old</li> <li>• <u>Check parent's concern</u> (esp. meningitis → rash)</li> <li>• Time-course &amp; degree of fever           <ul style="list-style-type: none"> <li>◦ &gt; 39.5° for any children</li> <li>◦ &gt; 38 for neonates 0-3 up to months old</li> <li>◦ <u>Intermittent (up + down) = reassuring (can Rx w/ anti-pyretics)</u></li> </ul> </li> <li>• Changes in <b>behaviour + colour</b></li> <li>• <b>Assoc.</b> cough, phlegm, wheeze, runny nose, redness, rash, headaches, dysuria,</li> <li>• <b>Changes in feeding + hydration</b> (XS vomiting or diarrhoea?)</li> <li>• <b>Any seizures/fits/LOC OR any family members also sick?</b></li> </ul> | <p>*Beware <b>glandular fever</b> → fever + swollen tonsil + swollen LN + splenomegaly</p>   |
| Exam<br>(top to toe)  | <ul style="list-style-type: none"> <li>• Check all over for rash → ABCD ENT TT G</li> <li>• Babies &lt; 8 wks may have serious infection w/o fever</li> </ul> <p><b>Source of infection:</b></p> <ul style="list-style-type: none"> <li>• Non-blanching Rash – meningitis, HSP, kawasaki</li> <li>• Enlarged LN – EBV (glandular), tonsillitis, pharyngitis</li> <li>• SOB, wet cough, wheeze, crackles → pneumonia, bronchiolitis, bronchiectasis</li> <li>• Abdo – AGE, ?SBO, ?ISS, appendicitis</li> <li>• ENT – ?otitis media, cellulitis</li> <li>• UA – ?UTI</li> </ul>  |  |
| Ix<br>(septic screen) | <ul style="list-style-type: none"> <li>• FBC, ESR/CRP</li> <li>• Blood cultures</li> <li>• ABG (met. Acidosis → lactic acid &gt; 3 (anaerobic metabolism) OR base excess &lt; -3 = need urgent attention)</li> <li>• <b>Role of anti-pyretics: test for serious infection</b> <ul style="list-style-type: none"> <li>◦ <i>Physiology:</i> If temp drops + child remains tachycardia/pnoea → serious infection</li> <li>◦ <i>Behaviour:</i> If temp drops + remains irritable → serious infection</li> </ul> </li> </ul>  | <p><b>Beware</b> – children have very good autonomic response to shrink peripheral vessels to ensure major organs (brain, kidney) receive blood supply → hence need to check cap refill time</p> <ul style="list-style-type: none"> <li>• BP deceptively always high</li> </ul> <p><b>Red flag signs:</b></p> <ul style="list-style-type: none"> <li>• If temp down but remains drowsy/irritable (i.e. cannot be enticed w/ toys)</li> <li>• Changes in colour (esp. pale)</li> <li>• &gt; 5 days = UTI, Kawasaki</li> </ul> |
| Mx                    | <ul style="list-style-type: none"> <li>• Drowsy + irritable + mottled + cyanosis (lips/limbs) → <b>High FiO<sub>2</sub></b></li> <li>• Peripheral shutdown signs → <b>IV fluids bolus</b></li> <li>• Drowsy → hypoglycaemia → <b>BM stick</b></li> <li>• Meningitis → <b>Empirical Abx</b></li> </ul>  |  |
| FU                    | <ul style="list-style-type: none"> <li>• Explain to parents – what to expect + when need urgent review?</li> <li>• Explain about feeding, drowsiness, and persistent fevers &gt; 5 days</li> </ul>   | <p><b>NO evidence</b> that tight fever control actually <b>prevents</b> a febrile convulsion</p>   |

## DEHYDRATION

| <p>Infants &lt; 6 months      6 months - 5 years      School children 5 - 12 years      Adolescent &gt; 12 years</p> <table border="1"> <tr><td>Posseting</td><td></td><td></td><td></td></tr> <tr><td>Feeding Problems</td><td></td><td></td><td></td></tr> <tr><td>Pyloric Stenosis</td><td></td><td></td><td></td></tr> <tr><td>Gastro-oesophageal reflux</td><td></td><td></td><td></td></tr> <tr><td>UTI/Coughing</td><td></td><td></td><td></td></tr> <tr><td>Intussusception</td><td></td><td></td><td></td></tr> <tr><td>UTI</td><td></td><td></td><td></td></tr> <tr><td>Gastroenteritis</td><td></td><td></td><td></td></tr> <tr><td>Meningitis</td><td></td><td></td><td></td></tr> <tr><td>Migraine</td><td></td><td></td><td></td></tr> <tr><td>Brain Tumour</td><td></td><td></td><td></td></tr> </table> | Posseting   |                   |   |       | Feeding Problems   |                      |   |             | Pyloric Stenosis                 |             |   |             | Gastro-oesophageal reflux |       |                                       |                   | UTI/Coughing |  |                         |  | Intussusception |  |  |  | UTI |  |  |  | Gastroenteritis |  |  |  | Meningitis |  |  |  | Migraine |  |  |  | Brain Tumour |  |  |  | <p>Is this characteristic GE with multiple vomits or several loose, watery stools, or whether it is less clear cut?</p> <table border="1"> <tr><th></th><th>Gastroenteritis</th><th>Surgical cause</th></tr> <tr><td>Abdo pain</td><td>campylobacter</td><td>appendicitis, SBO</td></tr> <tr><td>Bloody diarrhoea</td><td>Salmonella or Shigella</td><td>intussusception</td></tr> <tr><td>Prolonged diarrhoea</td><td>Salmonella</td><td></td></tr> <tr><td>Chronic</td><td>CF</td><td>ileostomy</td></tr> </table> <ul style="list-style-type: none"> <li>• Other symptoms:           <ul style="list-style-type: none"> <li>◦ Fever</li> <li>◦ Cough, Wheeze – <b>bronchiolitis</b></li> <li>◦ Urinary issues – <b>UTI, T1DM (DKA)</b></li> </ul> </li> <li>• Quantify fluid loss = intake – loss           <ul style="list-style-type: none"> <li>◦ Insufficient fluid intake</li> <li>◦ Heavy loss of fluid (i.e. prolonged vomit or diarrhoea)</li> <li>◦ (# of wet nappies in last 12 hrs)</li> </ul> </li> <li>• Check what last recent wt was?           <ul style="list-style-type: none"> <li>◦ <b>FLUID CHART &gt;1 mL/kg/hr = GOOD</b></li> </ul> </li> </ul> |  | Gastroenteritis | Surgical cause | Abdo pain | campylobacter | appendicitis, SBO | Bloody diarrhoea | Salmonella or Shigella | intussusception | Prolonged diarrhoea | Salmonella |  | Chronic | CF | ileostomy | <p><b>Fever &amp; Vomiting DDx for dehydration:</b></p> <ul style="list-style-type: none"> <li>• <b>CNS:</b> meningitis</li> <li>• <b>ENT:</b> otitis media</li> <li>• <b>Resp:</b> pneumonia, tonsillitis, pharyngitis</li> <li>• <b>Bowels:</b> GE, appendicitis, diverticulitis, gastritis, Hirschsprung-associated enterocolitis</li> <li>• <b>UTI</b></li> <li>• <b>Skin/MSK</b> = Cellulitis, osteomyelitis</li> <li>• <b>Gynae:</b> PID, orchitis</li> <li>• <b>DKA</b></li> </ul> |
|---|---|-------------------|---|-------|--|----------------------|---|-------------|----------------------------------|-------------|---|-------------|---------------------------|-------|---------------------------------------|-------------------|--------------|--|-------------------------|--|-----------------|--|--|--|-----|--|--|--|-----------------|--|--|--|------------|--|--|--|----------|--|--|--|--------------|--|--|--|--|--|-----------------|----------------|-----------|---------------|-------------------|------------------|------------------------|-----------------|---------------------|------------|--|---------|----|-----------|---|
| Posseting   |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Feeding Problems  |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Pyloric Stenosis  |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Gastro-oesophageal reflux   |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| UTI/Coughing  |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Intussusception   |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| UTI   |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Gastroenteritis   |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Meningitis  |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Migraine  |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Brain Tumour  |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
|   | Gastroenteritis   | Surgical cause    |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Abdo pain   | campylobacter   | appendicitis, SBO |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Bloody diarrhoea  | Salmonella or Shigella  | intussusception   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Prolonged diarrhoea   | Salmonella  |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Chronic   | CF  | ileostomy         |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| <ul style="list-style-type: none"> <li>• <b>Other symptoms:</b> <ul style="list-style-type: none"> <li>◦ Fever</li> <li>◦ Cough, Wheeze – <b>bronchiolitis</b></li> <li>◦ Urinary issues – <b>UTI, T1DM (DKA)</b></li> </ul> </li> <li>• <b>Quantify fluid loss = intake – loss</b> <ul style="list-style-type: none"> <li>◦ Insufficient fluid intake</li> <li>◦ Heavy loss of fluid (i.e. prolonged vomit or diarrhoea)</li> <li>◦ (# of wet nappies in last 12 hrs)</li> </ul> </li> <li>• <b>Check what last recent wt was?</b> <ul style="list-style-type: none"> <li>◦ <b>FLUID CHART &gt;1 mL/kg/hr = GOOD</b></li> </ul> </li> </ul>  | <p><b>Fluid resuscitation Mx</b></p> <table border="1"> <tr><td colspan="2">Unwell but OK</td></tr> <tr><td>TOF</td><td> <ol style="list-style-type: none"> <li>Small amounts of oral electrolyte frequently (e.g. every 5 mins) – <b>via syringe OR NGT</b></li> <li>Document any vomiting or diarrhoea &amp; # of bathroom visits           <ul style="list-style-type: none"> <li>◦ NGT (tolerated if &lt; 2yo) +/- ondansetron</li> </ul> </li> </ol> </td></tr> <tr><td colspan="2">Unwell but HD stable</td></tr> <tr><td>Maintenance</td><td>0.9% NS (isotonic) + 5% dextrose</td></tr> <tr><td>Replacement</td><td>0.9% NS + 5% dextrose (wt x deficit x 10)</td></tr> <tr><td colspan="2">HD unstable</td></tr> <tr><td>Resus</td><td>0.9% NS (20mL/kg) Bolus (max 60mL/kg)</td></tr> <tr><td colspan="2">Fail to rehydrate</td></tr> <tr><td></td><td>Ionotropes (Adrenaline)</td></tr> </table> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>• KCL 20mM if potassium needed (K &lt; 3.4mM)</li> <li>• Beware rapid fluid shifts → cerebral oedema (pontine demyelination syndrome)</li> </ul>   | Unwell but OK     |   | TOF   | <ol style="list-style-type: none"> <li>Small amounts of oral electrolyte frequently (e.g. every 5 mins) – <b>via syringe OR NGT</b></li> <li>Document any vomiting or diarrhoea &amp; # of bathroom visits           <ul style="list-style-type: none"> <li>◦ NGT (tolerated if &lt; 2yo) +/- ondansetron</li> </ul> </li> </ol>   | Unwell but HD stable |   | Maintenance | 0.9% NS (isotonic) + 5% dextrose | Replacement | 0.9% NS + 5% dextrose (wt x deficit x 10) | HD unstable |                           | Resus | 0.9% NS (20mL/kg) Bolus (max 60mL/kg) | Fail to rehydrate |              |  | Ionotropes (Adrenaline) |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Unwell but OK   |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
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| Unwell but HD stable  |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Maintenance   | 0.9% NS (isotonic) + 5% dextrose  |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Replacement   | 0.9% NS + 5% dextrose (wt x deficit x 10)   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| HD unstable   |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Resus   | 0.9% NS (20mL/kg) Bolus (max 60mL/kg)   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Fail to rehydrate   |   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
|   | Ionotropes (Adrenaline)   |                   |   |       |  |                      |   |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
| Exam  | <table border="1"> <tr><td>GI</td><td> <ul style="list-style-type: none"> <li>▪ <b>Active child</b> = mild dehydration → oral dehydration</li> <li>▪ <b>Drowsy</b> = severe dehydration → hospital Ax</li> <li>▪ <b>Jittery</b> = hypoglycaemia → BSL check → glucogel (oral dextrose) + IV glucose</li> </ul> </td></tr> <tr><td>Signs</td><td> <ul style="list-style-type: none"> <li>▪ <b>Sunken eyes</b> (ask what parents think?)</li> <li>▪ <b>Sunken fontanelle in infants</b> (space between skull bones) → if crying – fontanelles will bulge</li> <li>▪ <b>Dry MM</b> (tongue, lips)</li> <li>▪ <b>Mottled arms</b> and legs = poor perfusion</li> <li>▪ <b>Reduced skin turgor</b> (more floppy)</li> <li>▪ <b>Prolonged CR time (&gt; 3s)</b></li> <li>▪ <b>Cold skin</b></li> <li>▪ <b>Tachycardia</b></li> <li>▪ <b>Hypotension</b> (late)</li> </ul> </td></tr> <tr><td>Tests</td><td> <ul style="list-style-type: none"> <li>▪ <b>Record input/outputs</b> <ul style="list-style-type: none"> <li>◦ UA = ↑SG,</li> <li>◦ BFC = ↑HCT, Hb</li> <li>◦ EUC = elevated</li> <li>◦ Elevated serum osmolality</li> </ul> </li> </ul> </td></tr> </table> | GI                | <ul style="list-style-type: none"> <li>▪ <b>Active child</b> = mild dehydration → oral dehydration</li> <li>▪ <b>Drowsy</b> = severe dehydration → hospital Ax</li> <li>▪ <b>Jittery</b> = hypoglycaemia → BSL check → glucogel (oral dextrose) + IV glucose</li> </ul> | Signs | <ul style="list-style-type: none"> <li>▪ <b>Sunken eyes</b> (ask what parents think?)</li> <li>▪ <b>Sunken fontanelle in infants</b> (space between skull bones) → if crying – fontanelles will bulge</li> <li>▪ <b>Dry MM</b> (tongue, lips)</li> <li>▪ <b>Mottled arms</b> and legs = poor perfusion</li> <li>▪ <b>Reduced skin turgor</b> (more floppy)</li> <li>▪ <b>Prolonged CR time (&gt; 3s)</b></li> <li>▪ <b>Cold skin</b></li> <li>▪ <b>Tachycardia</b></li> <li>▪ <b>Hypotension</b> (late)</li> </ul> | Tests                | <ul style="list-style-type: none"> <li>▪ <b>Record input/outputs</b> <ul style="list-style-type: none"> <li>◦ UA = ↑SG,</li> <li>◦ BFC = ↑HCT, Hb</li> <li>◦ EUC = elevated</li> <li>◦ Elevated serum osmolality</li> </ul> </li> </ul> |             |                                  |             |   |             |                           |       |                                       |                   |              |  |                         |  |                 |  |  |  |     |  |  |  |                 |  |  |  |            |  |  |  |          |  |  |  |              |  |  |  |  |  |                 |                |           |               |                   |                  |                        |                 |                     |            |  |         |    |           |   |
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