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Evaluation and management of omphalitis.

1. Definition or Key Clinical Information (Leante Castellanos et al., 2019; Painter et al., 2022)

Omphalitis is a bacterial infection of the umbilical cord and surrounding area and is a medical emergency because it can quickly progress to systemic infection. Omphalitis generally develops within the first three days of life. The mortality rate for omphalitis is 7-15%.

2. Assessment

i. Risk Factors (Leante Castellanos et al., 2019; Painter et al., 2022)

- low birth weight
- prolonged rupture of membranes
- maternal infection
- umbilical catheterization
- nonsterile delivery
- chorioamnionitis
- prolonged delivery
- improper cord care

ii. Subjective Symptoms (Painter et al., 2022)

- redness, swelling, discharge or bleeding at the umbilical site
- foul odor from umbilical site
- lethargy
- poor feeding
- irritability

iii. Objective Signs (Gallagher et al., 2025; Painter et al., 2022)

- Fever
- Warm, tender umbilical site when palpated
- Foul odor or other signs of infection such as swelling or discharge upon examination

v. Clinical Test Considerations (Gallagher et al., 2025; Marshall & Raynor, 2020; Our Lady's Children's Hospital Crumlin, 2015)

- umbilical swab
- blood culture, CBC, c-reactive protein measurement

vi. Differential Diagnosis (Painter et al., 2022)

- Umbilical granulomas
- Patent urachus
- Umbilical polyps
- Funisitis

Practice Guideline for omphalitis

Updated Winter 2025

3. Management plan

i. Therapeutic measures to consider within the CPM scope (Jevitt, 2019; Leante Castellanos et al., 2019; Our Lady's Children's Hospital Crumlin, 2015)

- Clean skin around umbilicus with water and gauze
- Goldenseal powder on the cord site prophylactically

ii. Therapeutic measures commonly used by other practitioners (Gallagher et al., 2025; Painter et al., 2022)

- Parenteral antibiotics - antistaphylococcal penicillins, aminoglycoside, vancomycin, clindamycin, metronidazole
- Ventilation, fluids, vasoactive agents, blood products, parenteral feedings for severely ill infants

iii. Ongoing care (Our Lady's Children's Hospital Crumlin, 2015)

- Sterile technique for cord clamping and cutting
- Check the cord stump at all regular postpartum visits. If signs of omphalitis, refer for medical care. Follow-up to ensure prescribed course has been followed and omphalitis has resolved. Resume regular care of the newborn after hospital discharge.

iv. Indications for Consult, Collaboration, or Referral (Painter et al., 2022)

- Systemic signs of infection require immediate emergency care

v. Client and family education (Leante Castellanos et al., 2019)

- Proper cord care (clean and dry, fold diaper down) and symptoms of infection

4. References

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