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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

Gallagher, P., Shah, S., Windle, M., & Carter, B. (2025, January, 28). *Omphalitis*. Medscape.

<https://emedicine.medscape.com/article/975422>

Jevitt, C.M. (2019). Neonatal care. In T.L. King, M.C. Bruckner, K. Osborne, & C.M. Jevitt (Eds.) Varney's midwifery (6th ed.). Jones and Bartlett Learning.

Leante Castellanos, J. L., Pérez Muñozuri, A., Ruiz Campillo, C. W., Sanz López, E., Benavente Fernández, I., Sánchez Redondo, M. D., Rite Gracia, S., & Sánchez Luna, M. (2019). Recommendations for the care of the umbilical cord in the newborn. *Anales de Pediatría (Barc)*, 90(6), 401.e1-401.e5.

<https://doi.org/10.1016/j.anpede.2019.01.009>

Marshall, J.E. & Raynor, M.D. (2020). Myles textbook for midwives (17th ed.). Elsevier.

Our Lady's Children's Hospital, Crumlin. (2015). Guidelines on the care of the umbilical cord in OLCCHC (Version 3). <https://media.childrenshealthireland.ie/documents/Umbilical-Cord-.pdf>

Painter K., Anand S., & Philip K. (2022, September 12). *Omphalitis*. StatPearls Publishing.

<https://www.ncbi.nlm.nih.gov/books/NBK513338/>