Gastroschisis: Sutureless Closure Protocol

- Immediately after delivery
    - Silo placement or primary reduction per patient exam
    - Maintain umbilical cord remnant:
        - Wrap in xeroform gauze and moist gauze. Change PRN by bedside nursing with goal of maintaining moisture.
    - OG tube on LCWS for gastric decompression
    - IV access for fluid resuscitation
    - Patient made NPO
- Initial NICU Care:
    - Continue NPO with OG decompression
    - PICC line (preferably upper extremity) or CVL in first 24-48 hours
    - TPN initiation
    - Silo:
        - Have silo suspended above patient
        - Once to twice daily bedside reductions by pediatric surgery team
            - Premedicate patient if patient is not on a continuous morphine infusion
            - Notify NICU nurse prior to reductions
    - Kerlex gauze around base of silo to collect any drainage. Change PRN.
    - Silo Removal/Initial Dressing:
    - Premedicate infant with morphine prior to procedure. It is easiest to get a good dressing seal if infant is calm/not crying.
    - Prior to removing silo dry surrounding skin and apply Cavilon No-Sting barrier to skin.
    - Use mepitac tape in a square formation around all sides of the defect. Idea is to put down tape anywhere that the large tegaderm may be applied. This protects the surrounding skin.
    - Remove silo
    - Dressing application:
        - Xeroform gauze on bowel
        - Cover xeroform with 4x4 dry gauze
        - Cover entire defect with 1-2 large tegaderm dressings to obtain occlusive seal
    - Leave initial dressing in place for a minimum of 72 hours. May reinforce as needed.
- Subsequent Occlusive Dressing Changes:
    - Initial dressing ideally should be left for 3-5 days if at all possible
    - Continue occlusive dressings until adequate shrinkage of the defect and granulation tissue has begun as decided by pediatric surgery team
    - Infant does not need to typically be premedicated.
        - Helpful to notify NICU Nurse and Medical providers before dressing changes
    - Dressing changes: Remove large tegaderm dressings. If mepitac tape remains in place no need to remove. May remain in place up to 7 days. The mepitac tape helps to create a water proof seal that protects the healthy surrounding skin for breakdown from any

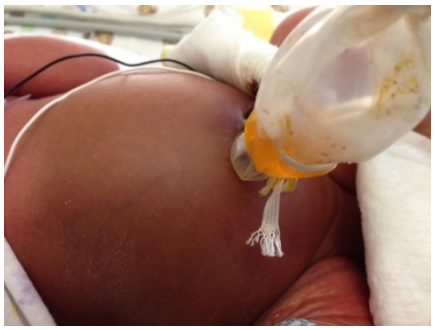
fluid leakage from the defect. Also helps to protect skin from irritation from Tegaderm dressings being repeatedly placed and removed on the healthy skin. May replace mepitac tape on a PRN basis. Wash/dry skin after old tape removal and add new layer of Cavilon No-Sting Barrier to skin prior to replacing tape.
        - Replace xeroform gauze to open defect/bowel. Should avoid having xeroform gauze sitting on surrounding skin.
        - Cover again with dry 4x4 gauze
        - Cover entire area with large tegaderm dressings
    - Dressings to be changed every 48 hours
- Nonocclusive Dressings:
    - Once the defect has begun to shrink in size and granulation tissue has begun to form may transition to nonocclusive dressings.
    - Remove occlusive dressing and surrounding mepitac tape.
    - Wash/dry surrounding skin with water after mepitac tape removed. Spray new layer of cavilon No-Sting barrier to surrounding skin.
    - Apply Xeroform gauze directly to open area of defect only. Increased importance at this point in having no Xeroform gauze sitting on normal skin. Cover with 1-2 dry 4x4 gauze.
    - Helpful to make Montgomery straps at this point to help secure the dressing in place to avoid repeated tape application to skin.
    - Bedside nurses can begin doing dressing changes at this time. Change daily and PRN.

Supply List:

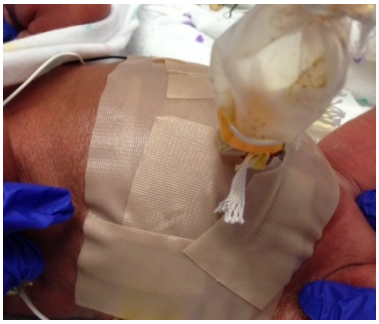
- Silo (kept in NICU)
- Small kerlex wraps (kept in NICU)
- Xeroform gauze (kept in NICU)
- 4x4 gauze (kept in NICU carts & supply room)
- Large tegaderm dressings (not always available in NICU, order to bedside, 4x4 size)
- Cavilon No-Sting barrier (order in epic, #246)
- Mepitac tape: 2 sizes, 1 ½ in and ¾ in sizes (order in EPIC)

Reference photos for initial silo removal and dressing placement:

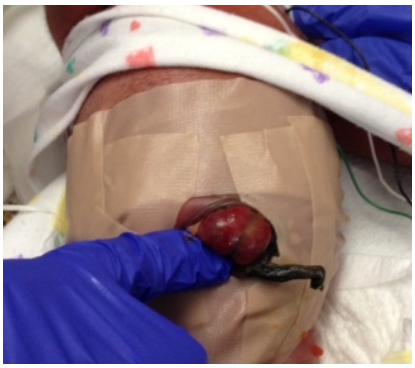
1. Bowel fully reduced. Skin fully dried and cavilon no-sting barrier applied and allowed to dry.

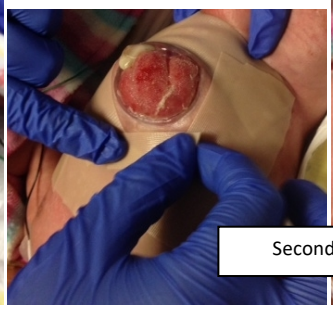


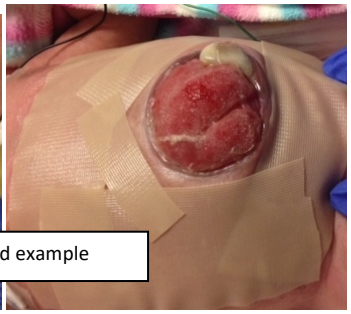
2. Mepitac tape applied to skin prior to silo removal



3. Silo removed, prior to xeroform gauze and dry 4x4 application







Second example

4. Dressing applied and large tegaderm in place