Acetic Acid Chromoendoscopy Resource

Intended Audience: Nurses and Endoscopists at the Royal Alexandra hospital Endoscopy Department

Objective: This resource is to outline the steps recommended when utilizing acetic acid chromoendoscopy during EGD procedure. This technique may be used to visualize mucosal changes and perform targeted biopsies. **Instillations are to be done under direct physician supervision.**

Key Point Summary:

- **Dilute Acetic Acid** to 2.5% before instillation (instructions below)
- **Slow instillation of Acetic Acid solution** via scope channel with spray catheter
- **Utilize patient positioning & suctioning** to minimize aspiration risk with instillation

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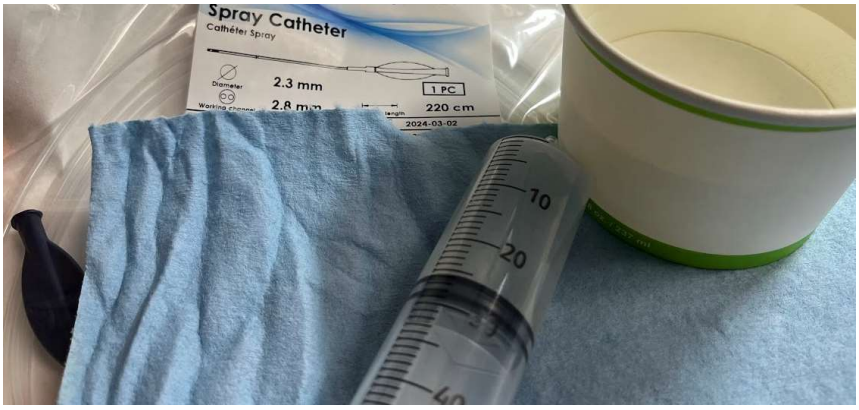
Supplies:

- Acetic Acid (Vinegar)
  - **RAH Stock availability: Acetic Acid (Vinegar) 5%** (for dilution before use)
- Sterile Water
- Syringe Luer Lock, 50mL
- Spray Catheter
- Bowls (for diluting Acetic Acid solution)
- Bedside Suction working and yaunker suction device ready



Procedure:

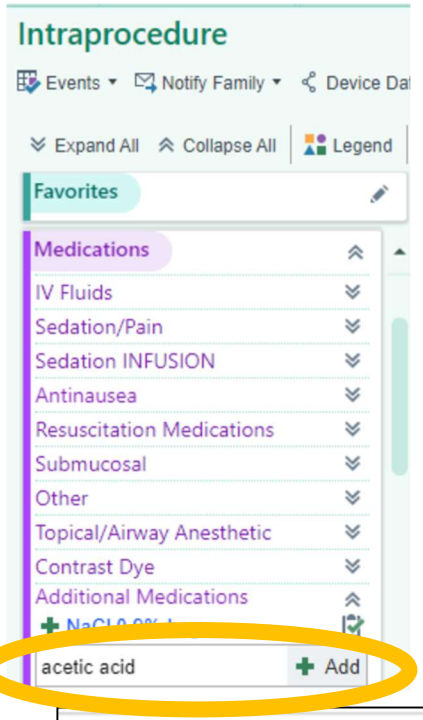
1. **Preparation:**
   - **Allergies**: check for food allergies, including vinegar or acetic acid (ie: not just medication allergies).
   - **Gather supplies and explain procedure** to patient as appropriate.
   - **Dilute Acetic Acid** to 2.5% concentration:
     - **Instructions:** mix 20mL of 5% Acetic Acid with 20mL of Sterile Water, draw up diluted Acetic Acid in 50mL syringe

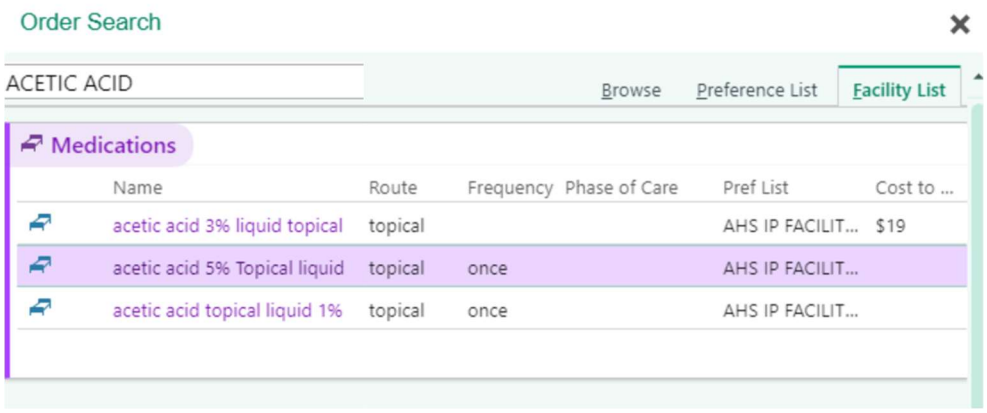
(Procedure Continued…)

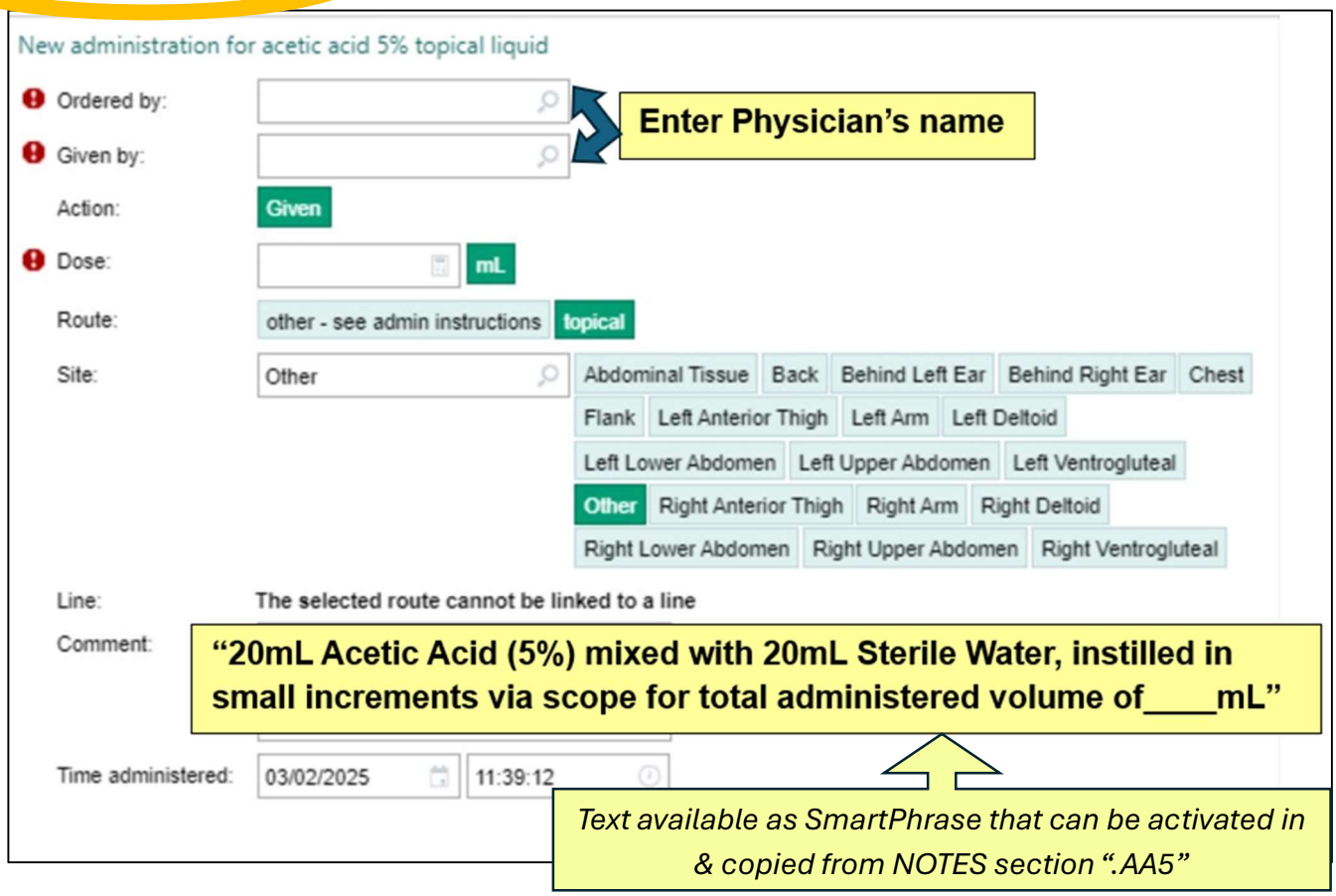
2. **Positioning:**
    - **Elevate the head** of the bed.
    - **Position the patient** in the left lateral position, ensuring their head is tipped towards the pillow to help minimize aspiration risk.
    - **Ensure suction equipment** is functioning and ready at the head of the bed /at the patient's mouth.
    - **Cover patient's eyes/face with towel** to protect from potential Acetic Acid solution splash
3. **Instillation of Acetic Acid Solution (by physician or under direct physician supervision/guidance):**
    - **Slowly instill** the diluted acetic acid (2.5%) solution via spray catheter in scope in small amounts at the esophageal squamocolumnar junction and cover the mucosa circumferentially.
    - **Suctioning**: Constant suctioning by nurse in oropharynx with suction device.
        - **Note:** Endoscopist can provide suctioning prn via scope to ensure any excess Acetic Acid solution is managed at site of instillation.
    - **Watch for immediate changes** in the mucosa as acetic acid is instilled; these changes occur right away and typically last only a few minutes.
    - **Capture high-definition images** of the mucosal changes using white light and NBI (narrow-band imaging).
    - **Take targeted biopsies** immediately.
        - **Note:** all specimens should be taken AFTER vinegar instillation and not before (to prevent Acetic Acid Solution on newly-exposed areas)
    - If necessary, **the procedure may be repeated**, as the chromoendoscopy effect may be short-lived.
4. **Post-Procedure care considerations and documentation:**
    - Document in Connect Care (Example on following page)
    - **Handover considerations for Recovery:** Some burning sensations may occur, especially if numerous biopsies were taken or if Acetic Acid was instilled on a previously biopsied area. Please bring forward any concerns to Endoscopist.

(Procedure Documentation Continued…)

5. **Connect Care Documentation - Intraprocedure**:
    - Search for “acetic acid”
    - Select “acetic acid 5% Topical liquid”
    - Complete entry with administration instructions in comment (as pictured below)







Additional information/resources:

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Sun Y, Ma S, Fang L, Wang J, Dong L. Circular stripes were more common in Barrett's esophagus after acetic acid staining. BMC Gastroenterol. 2018 Jan 25;18(1):17. doi: 10.1186/s12876-018-0745-7. PMID: 29370762; PMCID: PMC5784670.

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Chedgy F, Fogg C, Kandiah K, Barr H, Higgins B, McCord M, Dewey A, De Caestecker J, Gadeke L, Stokes C, Poller D, Longcroft-Wheaton G, Bhandari P. Acetic acid-guided biopsies in Barrett's surveillance for neoplasia detection versus non-targeted biopsies (Seattle protocol): A feasibility study for a randomized tandem endoscopy trial. The ABBA study. Endosc Int Open. 2018 Jan;6(1):E43-E50. doi: 10.1055/s-0043-120829. Epub 2018 Jan 12. PMID: 29340297; PMCID: PMC5766339.

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