Sacred Cows in School Nursing: Where’s the Research?

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Why do we follow the policies and protocols of the district?

We’ve always done it this way; I was taught this way; If I don’t follow the policy, I can be fired; That’s the way the nurse before me set it up; The teachers like when we do it!

Evidence Based Practice is “the integration of best research, clinical expertise, and patient values in making decisions about the care of individualized patients” (Institute of Medicine)

What findings are relevant and applicable to clinical situations and aim at better student outcomes?

ALWAYS look at the references used to guide a policy or protocol. Ask…where is the evidence?

In the hospital setting:

1. There is no rationale for q4 vital signs.
2. There is no science behind NPO after midnight
   - Goal is to prevent aspiration and potential sequellae
     i. 2 hours for clears
     ii. 4 hours for breast milk
     iii. 6 hours for formula
     iv. 6 hours for light meal (non-fatty) and non-human milk
     v. 8 hours for fatty foods (American Society of Anesthesiologists, 2010)
3. We still haven’t agreed on the correct way to measure if an NG tube is in place
4. There is good science that says “Do NOT instill saline before suctioning a trach”
   - It decreases oxygen saturation; increases patient anxiety and heart rate; does NOT thin mucus; contributes to bacterial colonization.
5. There is good science that says “Do NOT use Trendelenberg position
   - Impairs oxygen and ventilation, increases aspiration risk, increases risk of cerebral edema, engorges the right ventricle...
   - EBP DOES support elevating the extremities without a head-down tilt (modified Trendelenberg)
In the school setting:

1. **Hydrogen Peroxide – Don’t use it!!!**
   - Strong oxidizer; slows healing, leads to scarring, destroys newly formed skin cells
   - Does more harm than good

2. **Hand Hygiene**
   a. 2013, FDA ruled that companies making products that clean had to demonstrate they are better than soap and water to prevent disease and spread of infection
   b. Must use alcohol-based products with >60% alcohol
      i. Kills pathogens and some viruses but not norovirus
      ii. Danger of alcohol abuse by kids
         1. Beer = 5% alcohol; wine = 12%; distilled spirits = 40%
         2. 2 ounce bottle = 4 shots of vodka
            a. Licking hands after use is not a problem
   c. NON-alcohol sanitizers use TRICLOSAN
      i. No disease protection; does not protect against viruses or fungi
      ii. Can result in antibiotic resistance
      iii. DO NOT USE

3. **Vision Screening**
   a. Get rid of Tumbling E charts
   b. LEA symbols and HOTV charts are best for younger children; SLOAN chart is gold standard due to research on the optics of the letters
      i. Tested on size, difficulty, threshold blur, and dimension
      ii. Snellen is not standardized and has unequal spacing between optotypes and lines

4. **Ice or Heat**
   a. Ice is for injuries
      i. Use on anything <24 hours that swells
      ii. Ice calms the nerves to decrease pain due to vasoconstriction; decreases edema
      iii. Don’t put directly on skin → frostbite
      iv. Do not use >30 minutes at a time.
   b. Heat relaxes muscles, especially postural muscles (back and neck), muscle spasms, soreness, and arthritis
      i. Use <30 minutes
      ii. Moist is best
      iii. Heat used on an acute injury → increase in inflammation and increased swelling
5. Sprains – DON’T ‘Walk it off’
   a. Sprains = stretched or torn ligaments
   b. Walking on it will slow or exacerbate healing for 48 hours unless there is not too much pain when you do so, but rest often
      i. Elevate above heart
      ii. Ice every hour for 20 minutes for 24 hours; then 20 minutes 3-4 times/day
   c. RICE (rest, ice, compression, elevation) has never been shown to be effective in clinical trials, but it is best practice; so use RICE if it is not too long
   d. Use Tylenol for 24 hours so immune system can do its thing; then ibuprophen

6. Posture Screening
   a. 2004 - The USPSTF “did not find good evidence that screening asymptomatic adolescents detects idiopathic scoliosis at an earlier age than detection without screening”
      i. “Screening can be beneficial for detecting scoliosis earlier”
      ii. “There is no great evidence that bracing does not stop progression, but there is also no evidence that it doesn’t work either”
      iii. They recommend girls be screened at ages 10 AND 12; and that boys be screened once at age 13 OR 14

7. Peak Flow
   a. Usually lowest in the morning and highest in the afternoon
   b. Measurement is effort and technique dependent; results are dependent on the skill of the person doing it.
   c. “Asthma Action Plans relying on peak flow alone do not conclusively provide better outcomes than do symptom-based asthma action plans”
      i. So listen, look at color, take vital signs

8. Use of Pulse Oximetry
   a. Items that interfere with a good pulse ox reading
      i. Nail polish or pigment on finger; false nails
      ii. Bright light on probe
      iii. Patient movement/ shivering
      iv. Poor perfusion
      v. Moisture/ sweat
      vi. CO poisoning
   b. Clean gently with damp cloth or alcohol swabs
   c. Not generally indicated for asthma; ok for trach/vent/frequent suction
9. BMI: give overall impression of growth; not good for athletes and special populations
   a. Be careful about using form letters to report findings

10. Think of all of this technology as TOOLS – not RULES

11. TIDBITS
   a. Use of alcohol before insulin shot: “give in clean site with clean hands; disinfect if unclean or if in a setting where infections can be easily spread”
   b. Concussion helmets – do not prevent concussions
   c. LICE policies – NO SCIENCE TO SUPPORT NO-NIT POLICIES
   d. Uniforms for school nurses – has never been studied
      i. Just be clean and professional
   e. NUT FREE tables/classrooms
      i. Law requires reasonable accommodations
      ii. No research that any particular approach is better
   f. Reusing suction catheters only one study with no difference with endotracheal tube
   g. Reusing urinary catheters – no research that is not from a company
   h. Cleaning of spacers weekly and after illness (wash parts for 15 minutes in mild solution of liquid dish detergent and lukewarm water; rinse in clean water ????)

12. Essential to study
   a. What is the impact of not having a school nurse in the school? How many errors?
      How many ‘diagnoses’; how much lost time in class because they are sent home?
      How much spread of illness?
   b. What are the results of ‘staff’ giving Epipens and glucagon? What errors do they make? Who is checking their knowledge and skill a year later?
   c. Where do secretaries keep medications? Do they record them? What errors do they make?