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Problem Based Learning Discussion

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The Price is Right? The non-intuitive hospital costs of drugs used in anesthesia

Your hospital, like many, is under significant financial stress. Your administration has asked that each department look for opportunities to save costs. Apparently still staggered by the ongoing expense of sugammadex, pharmacy has identified anesthesia as a likely source of cost savings. Members of your department resent the implication that anesthesia care should be dictated by drug costs and insist that the discussion revolve around quality and safety (providing the “best anesthetic in my hands”). The director of pharmacy counters that not only do anesthesia providers not care about pharmacy costs, but that they are blissfully ignorant of them as well. He presents the following challenge:

1. What is the current hospital cost of sugammadex 200mg?
2. Vasopressors are routinely used during anesthesia. Which of the following correctly shows the cost of some common vasopressors from least expensive to most:
A) phenylephrine 10mg < vasopressin 20U < norepinephrine 4mg
B) vasopressin 20U < norepinephrine 4mg < phenylephrine 10mg
C) phenylephrine 10mg < norepinephrine 4mg < vasopressin 20U
3. As part of a TIVA technique for a prolonged lumbar decompression in an 80 kg patient, you plan to use propofol 100ug/kg/min (48 mL/hr). For a 6-hour surgery, you calculate a total volume of 288 mL. How much will you save by using 3 100mL bottles instead of 15 20mL bottles of propofol?
4. Fresh gas flows directly impact the dose of potent inhaled anesthesia agents as well as consumption of carbon dioxide absorbent. At 1 MAC, which of the following is the least expensive:
A) Sevoflurane at 1 L/min FGF
B) Isoflurane at 4 L/min FGF
C) Desflurane at 0.5L/min FGF
5. Neurolytic celiac plexus block is commonly used in the treatment of refractory pain due to pancreatic cancer. What is the current hospital cost of 20 mL dehydrated alcohol (98% ethyl alcohol)?
6. Prefilled syringes can prevent drug waste. How much more does a prefilled 100mg succinylcholine syringe cost than 100mg drawn from a 200mg multidose vial?
A) Same price B) Twice as much C) 4 times as much
7. What is the current hospital cost of remifentanyl 1mg?

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