

POSTOPERATIVE CASE STUDY:

A COLLABORATIVE APPROACH TO SYMPTOMATIC BRADYCARDIA

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Background Information: A 64 year old female patient arrived to PACU after right total hip replacement surgery. Preoperative vital signs were 110-120/70's, heart rate 59-60 beat per minute (bpm), respirations 16 per minute, and pulse ox 100% on room air. Home meds included aspirin, carvedilol, furosemide, hydralazine, atorvastatin, metformin, amlodipine, and enalapril. The case was done under general anesthesia with no significant intraoperative events. Postoperatively, vitals were 80-90's/60's, 40's/sinus bradycardia, 15, and 99% on room air. The PACU nurse called anesthesia to bedside for a heart rate persistently <50 with a MAP <60.

Objectives of Project: The objective was for PACU nursing and anesthesia to collaborate and address the patient's newly recognized symptomatic bradycardia.

Process of Implementation: The Attending Anesthesia came to bedside. Initial interventions included IV fluids, atropine 0.5mg (divided doses), epinephrine 100mcg (divided doses), and oxygen via face mask. Nursing and anesthesia worked together to review differential diagnoses. Possible causes of the symptomatic bradycardia were systematically reviewed, including anesthesia side effects, ischemia, electrolytes, hypoxia, and medications.

Statement of Successful Practice: An epinephrine infusion of 1-3mcg/min was started as the differential diagnoses were evaluated. Potassium lab came back at 8.1mmol/L (normal 3.6-5.1mmol/L). The patient was treated for increased potassium with calcium, insulin/dextrose, and albuterol. The symptomatic bradycardia resolved almost immediately after interventions. The patient's potassium also decreased to normal. Endocrinology was consulted for follow up. The increase in potassium was found to be a side effect of the patient's metformin.

Implications for Advancing the Practice of Perianesthesia Nursing: The events of this case study were shared in an in-service, Grand Rounds setting by anesthesia and nursing. The in-service was filmed and viewed by staff who could not attend in person. This case study highlighted collegial collaboration in the PACU setting between nursing and anesthesia and the importance of sharing unique PACU case studies.