This study examines the outcomes of selective chest radiography after fluoroscopic guided central line placement” Dalton et al (2016).

Abstract:

PURPOSE: Historically, a chest radiograph was obtained after central line placement in the operating room. Recent retrospective studies have questioned the need for this radiograph. The prevailing current practice at our center is to order chest radiograph only for symptomatic patients. This study examines the outcomes of selective chest radiography after fluoroscopic guided central line placement.

METHODS: After obtaining institutional review board approval, a single institution retrospective chart review of patients undergoing central venous catheter placement by the pediatric surgery or interventional radiology service between January 2010 and July 2014 was performed. Outcome measures included CXR within 24h of catheter placement, reason for chest radiograph, complication, and complication requiring intervention.

RESULTS: In the study population 622 catheters were placed under fluoroscopy. A chest
radiograph was performed in 118 (19%) patients within 24h of the line placement with 25 (4%) of these patients being symptomatic in the recovery room. One patient required chest tube for shortness of breath and pleural effusion. Four symptomatic patients (0.6%) were found to have a pneumothorax, none of which required chest tube placement. There were no re-operations because of mal-position of the catheter. In the 504 patients with no postoperative chest x-ray, there were no adverse outcomes. At our institution the current average charge of a chest radiograph is $283, thus we produced savings of $142,632 for the study period without adverse events.

CONCLUSION: After placement of central venous catheter under fluoroscopic guidance, a chest radiograph is unlikely to be helpful in an asymptomatic patient.

Reference:


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