

not cause a significant change. The total number of pages to RR (a measure of workflow disruption) decreased significantly on the WDs (23 vs 19 pages, $p=0.0011$), but not on WE (79 vs 75 pages, $p=0.1663$). However when adjusting for number of scans ordered, there was a decrease in paging rates (0.73 vs 0.54 pages per scan ordered on WD [$p<0.00005$], 3.24 vs 2.63 pages per scan ordered on WE [$p=0.0012$]). **Discussion/Impact:** Our intervention led to improved work satisfaction and perceived efficiency experienced by both EPs and RRs. It did not statistically significantly affect imaging turnaround times or utilization rates. Our project shows that calling for preapproval of imaging studies does not seem to provide any benefit in our setting.

Keywords: computerized provider order entry, quality improvement and patient safety, workflow optimization

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The evaluation of various point of care ultrasound features in Stanford type A aortic dissections

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Introduction: Type A aortic dissection (AD) is one of the most lethal diseases in medicine. Its mortality rate increases 1-2% per hour from the onset of symptoms to treatment. Timely diagnoses of ADs, therefore, are crucial to improve survival and decrease morbidity. There are various proposed clinical guidelines to help emergency physicians decide when a CTA is urgently needed with most widely quoted being the validated Aortic Dissection Detection Risk Score (ADD-RS) recommended by the American Heart Association. The addition of D-Dimer for further risk stratification has also been entertained. A recent article published in the American Journal of Emergency recommends using point of care ultrasound (POCUS) to expedite diagnosis. With the rising use of POCUS in the emergency department, it can be the missing link to timely AD diagnoses. This project aims to elucidate the prevalence of positive POCUS findings (pericardial effusion and dilated aortic root) in type A AD via a retrospective chart review. **Methods:** This study is a retrospective chart review of 200 patients with the diagnosis of AD treated at Southlake Regional Hospital. We included patients diagnosed with type A AD and excluded those diagnosed with type B AD. We collected data on their demographics, ADD-RS scores, investigation results, treatments, and clinical outcomes. The main focus of the chart review was on the presence of pericardial effusion or dilated aortic root on echocardiograms. Binomial statistical analysis was used to analyze the collected data. **Results:** We identified 126 patients with type A AD out of 200 charts reviewed. Thirteen (14% CI 8-23%, $n=93$ $p=0.05$) had wide mediastinum on their chest X-rays; twenty (95% CI 75-100%, $n=21$ $P=0.05$) had elevated D-dimer levels; and ninety-one (72% CI 64-80%, $n=126$ $p=0.05$) had positive ADD-RS. Only 88 out of 126 AD cases had documented echocardiograms. Sixty-eight (77% CI 67-86%, $n=88$ $p=0.05$) had either pericardial effusions or dilated aortic roots on their echocardiograms. Eighty-one (92% CI 84-95%, $n=88$ $p=0.05$) had either positive ADD-RS or positive echocardiogram findings, which is 20 (23% CI 14-33%, $n=88$ $P=0.05$) more cases than ADD-RS would have picked up alone. **Conclusion:** The absence of both pericardial effusion and dilated aortic root on echocardiogram in combination with a negative ADD-RS has a high sensitivity for ruling out type A AD. Our data support further research into the use of POCUS to expedite the diagnosis of type A AD in the emergency department.

Keywords: aortic dissection, diagnosis, point-of-care ultrasound

P123

Emergency department utilization by patients with advanced chronic kidney disease and dialysis: A population based study

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Introduction: Chronic Kidney Disease (CKD) is a potent risk factor for kidney failure, cardiovascular events and all cause hospitalizations. In addition to higher outpatient resource use, patients with CKD may present more frequently to the emergency department (ED) and may be more likely to be admitted for hospitalization. In Manitoba, we previously demonstrated an 8-fold increase in the frequency of ED presentations by patients on dialysis as compared to a non-dialysis population. Comparable data on ED visits remain sparse for patients with CKD G3-G5, not on dialysis. Here, we aim to describe the frequency of ED visits and highlight differences in reasons for visit in patients with CKD stages G3-G5 and those on dialysis when compared to a non-CKD population. **Methods:** We performed a retrospective cohort study using administrative health data from the Winnipeg Regional Health Authority, Canada. We included all adults (≥ 18 years) with CKD stages G3-G5 and patients undergoing dialysis between January 1st, 2010 and December 31, 2014. Secular trends in the rates of ED visits were calculated for those with CKD, those on dialysis and in the non-CKD population. **Results:** Over the study period, patients undergoing dialysis had the highest incidence of ED visits, followed by patients with CKD and those with normal kidney function (150 vs 106 vs 34 per 100 persons per year respectively). These rates were stable over the period studied. Among the non-CKD population, the most common reasons for an ED visit were musculoskeletal complaints (25.6%), followed by gastrointestinal (11.04%) and cardiovascular complaints (10.26%). In the CKD and dialysis cohort, ED visits were more commonly secondary to cardiovascular complaints (21.54% and 18.99% respectively), followed by respiratory and gastrointestinal complaints. Admission to hospital was higher in CKD and dialysis populations than in the non-CKD population (29.56%, 26.07% vs 10.61%, respectively). **Conclusion:** Patients with CKD present frequently to the ED, and are often admitted after presentation. Cardiovascular and respiratory complaints are more common in the CKD population when compared to the general population.

Keywords: chronic kidney disease, dialysis, glomerular filtration rate

P125

Low dose intravenous ketorolac in renal colic, a pilot randomized controlled trial

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Introduction: Non-steroidal anti-inflammatory drugs (NSAIDs) are first-line analgesics for emergency department (ED) patients with renal colic. Lower doses of intravenous (IV) ketorolac may provide similar pain relief to standard dosing in patients with acute pain. Patients with renal colic may be at increased risk of acute kidney injury; exposing them to lower doses of NSAIDs may put them at lower risk while providing equally effective analgesia. We conducted a pilot study to determine the feasibility of a randomized trial