Establishing the Problem: Identifying Barriers to Workflow Among Internal Medicine Resident Physicians Within the VA Medical Center

Joshua Warner
University of Nebraska Medical Center

Tell us how you used this information in this short survey.

Follow this and additional works at: https://digitalcommons.unmc.edu/gmerj

Part of the Higher Education Commons, and the Medicine and Health Sciences Commons

Recommended Citation
Warner, J. Establishing the Problem: Identifying Barriers to Workflow Among Internal Medicine Resident Physicians Within the VA Medical Center. Graduate Medical Education Research Journal. 2024 Jun 28; 6(1).
https://digitalcommons.unmc.edu/gmerj/vol6/iss1/47

This Conference Proceeding is brought to you for free and open access by DigitalCommons@UNMC. It has been accepted for inclusion in Graduate Medical Education Research Journal by an authorized editor of DigitalCommons@UNMC. For more information, please contact digitalcommons@unmc.edu.
Establishing the Problem: Identifying Barriers to Workflow Among Internal Medicine Resident Physicians Within the VA Medical Center

Abstract
NA

Creative Commons License

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License.

This conference proceeding is available in Graduate Medical Education Research Journal: https://digitalcommons.unmc.edu/gmerj/vol6/iss1/47
Conclusion: VDD is correlated to depression, with the vast majority of the evidence in sleep disorder, fatigue, and suicidal behaviors. Screening VDD in patients’ PHQ-9 positive for the above items may provide higher positive predictive value.

#44. Establishing the Problem: Identifying Barriers to Workflow Among Internal Medicine Resident Physicians Within the VA Medical Center
Joshua Warner1, Evan Symons2
1Department of Internal Medicine, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA
2Department of Internal Medicine, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA

Mentor: Evan Symons
Program: Internal Medicine
Type: Original Research

Background: Workflow inefficiencies, particularly those related to the electronic health record ‘CPRS’, have been a major focus in feedback from Internal Medicine (IM) resident physicians working at the Omaha Veterans’ Affairs (VA) facility. We surveyed current IM resident physicians to elucidate which factors have been especially cumbersome to daily workflow at the Omaha VA facility.

Methods: We drafted a list of CPRS components and institutional variables, which were then formulated into a Likert-style questionnaire. Participants were asked to gauge how frequently they had difficulty using each item. Additionally, participants ranked their level of agreement with statements regarding daily tasks essential to medical practice. These questions were distributed to current IM residents using Microsoft Forms. A public link was used to preserve anonymity.

Results: A total of 21 responses were obtained (91 participants total, 23% response rate) which is comparable to established survey response rates. Locating intake and output data is challenging for most respondents (50% responding ‘constant issues’; 35% responding issues occur ‘frequently’). Difficulty logging onto a workstation was experienced ‘occasionally’ or greater in 90% of survey participants. (Figure 1) By comparison, patient list selection, reviewing notes, and forwarding pagers cause less frequent impediments.

Conclusion: A majority of IM resident physicians experience disruptions to daily workflow by potentially modifiable factors at the Omaha VA facility. Interventions to mitigate these factors can be prioritized based on the percentage of residents affected and the relative event frequency.

Figure 1. Participant responses to the prompt: “Please estimate how often you have experienced difficulty when using each of the following items.”

#45. Prosthetic Valve Endocarditis With Cardiobacterium Hominis: A Case Report
Kaci Griffin1, Timothy Jang2, Rees Adomako2, Jasmine Marcelin2, Jonathan H. Ryder2
1Department of Internal Medicine, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA
2Department of Internal Medicine, Division of Infectious Diseases, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA
3Department of Internal Medicine, Division of Cardiovascular Medicine, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA

Mentor: Jonathan H. Ryder
Program: Internal Medicine
Type: Case Report

Background: Cardiobacterium hominis (C. hominis) is an uncommon cause of infective endocarditis and often presents sub-acutely with fevers, cardiac murmurs, or embolic phenomena. We present a rare case of C. hominis infective prosthetic valve endocarditis that presented with new onset atrial flutter and systemic emboli.

Case: A 38-year-old male presented to the emergency department with palpitations, shortness of breath, and chest tightness and was found to be in atrial flutter. He underwent a transesophageal echocardiogram guided cardioversion and was incidentally found to have a one-centimeter echodensity on the ventricular side of his prosthetic aortic valve (Figure 1). He had a prior history of native valve endocarditis secondary to methicillin-susceptible Staphylococcus aureus related to injection drug use necessitating aortic and tricuspid valve replacements. He had refrained from injection drug use since prior to his last episode of endocarditis. He did not have any common signs or symptoms associated with endocarditis, such as fevers, chills, or new murmurs. Blood cultures eventually grew C. hominis, and he was successfully treated with 7 weeks of ceftriaxone prior to a re-do sternotomy with mechanical aortic and bioprosthetic tricuspid valve replacements.

Conclusion: Cardiobacterium hominis is a rare but important to recognize cause of infective endocarditis with an indolent presentation that often leads to delayed diagnoses. Clinicians should have a high index
of suspicion for endocarditis in patients with prosthetic valves and systemic or cardiac-related symptoms.

Figure 1. Transesophageal echocardiogram. A) 3D volume rendered view from the left ventricular outflow tract shows 1cm vegetation (white arrow) attached to the ventricular side of the bioprosthetic aortic valve leaflet. B) True view rendering from the same perspective demonstrates the vegetation (white arrow) highlighting depth perspective. C) Off axis mid-esophageal 3 chamber view clearly shows the vegetation (white arrow) after avoiding acoustic shadowing artifact.

#46. Report Study – A Comparison of Self-Reported Alcohol Intake Compared to Phosphatidylethanol Value as a Predictor for Return to Alcohol Use
Kevin Brittain1, Kyle Scholten1, Luis Zuniga1, Kaeli Samson2, Patrick Twohig3, Thoetchai Bee Peeraphatdit4, Marco Olivera-Martinez4

1Department of Internal Medicine, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA
2Department of Biostatistics, College of Public Health, University of Nebraska Medical Center, Omaha, NE, USA
3Department of Gastroenterology & Hepatology, College of Medicine, University of Rochester, Rochester, NY, USA
4Department of Internal Medicine, Division of Gastroenterology & Hepatology, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA

Mentor: Marco Olivera-Martinez

Table 1. Return to Alcohol Use of Self-Reported Alcohol Use vs PEth.

<table>
<thead>
<tr>
<th>Self-Reported Alcohol Use</th>
<th>PEth Light (%)</th>
<th>PEth Moderate (%)</th>
<th>PEth Heavy (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>5/15 (33.3)</td>
<td>28/81 (34.6)</td>
<td>31/66 (47.0)</td>
<td>64/101 (63.6)</td>
</tr>
<tr>
<td>Moderate</td>
<td>9/15 (60.0)</td>
<td>8/15 (53.3)</td>
<td>14/26 (53.8)</td>
<td>22/35 (62.9)</td>
</tr>
<tr>
<td>Heavy</td>
<td>1/1 (100)</td>
<td>4/22 (18.2)</td>
<td>11/11 (100)</td>
<td>16/34 (47.1)</td>
</tr>
<tr>
<td>Total</td>
<td>6/30 (20.0)</td>
<td>40/77 (51.9)</td>
<td>56/73 (76.7)</td>
<td>102/170 (60.0)</td>
</tr>
</tbody>
</table>

N = Return to Alcohol Use/No Return to Alcohol Use, (Percent of Return to Alcohol Use)

Methods: Inclusion criteria included ICD codes for the diagnosis of chronic liver disease, at least one positive PEth (greater than 10 ng/mL), and two total PEth tests. Patient-reported drinks per week were categorized as light (fewer than 2), moderate (2-14), or heavy (more than 14). PEth data was categorized as light (<20 ng/mL), moderate (21-200 ng/mL), or heavy (>200 ng/mL). PEth data was equivalent with PEth values, and 9.4% over-reporting alcohol intake based on self-reported PEth values. Underreporting was associated with higher rates of return to alcohol use (71.6% vs 42.7%, p=0.0002). The odds ratio of return to alcohol use with underreporting alcohol intake was 3.39, 95% CI (1.78, 6.45; p=0.0002) (Table 1).

Results: There were 60.0% of patients underreporting alcohol intake, 30.6% were equivalent with PEth values, and 9.4% over-reporting alcohol intake compared to PEth values. Underreporting was associated with higher rates of return to alcohol use (71.6% vs 42.7%, p=0.0002). The odds ratio of return to alcohol use with underreporting alcohol intake was 3.39, 95% CI (1.78, 6.45; p=0.0002) (Table 1).

Conclusion: This study is the first to evaluate return to alcohol use based on self-reported alcohol use versus PEth values. We found a significant association between underreporting and return to alcohol use, with an increased incidence and odds ratio for return to alcohol use.

#47. Outcome of Organ Procurement and Transplantation Network Policy Allowing for Waiting Time Modification for Candidates Affected by Race-Inclusive eGFR Calculations
Debra Wekesa1, Scott Westphal1, Clifford Miles2

1Department of Internal Medicine, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA
2Department of Biostatistics, College of Public Health, University of Nebraska Medical Center, Omaha, NE, USA

Mentors: Scott Westphal, Clifford Miles

Type: Original Research

Background: Black patients have a high burden of kidney disease yet experience lower rates of waitlisting and kidney transplantation. In 2023, the OPTN implemented a policy whereby registered black transplant candidates could receive waiting time adjustment if a prior race-inclusive eGFR calculation yielded values such that “non-African American” eGFR was ≤ 20 ml/min, but the “African American” modified eGFR was >20 ml/min.

Methods: Our transplant program identified potential candidates, and through internal EMR review, and communication with patients, nephrologists, and PCPs, eligible candidates were identified. The impact of this policy change was assessed after one month.

Results: Thirty-seven adult patients on our waitlist had self-identified as Black/African American. Nineteen (51.4%) patients with historic race-inclusive GFR estimates were non-African American. Nineteen (51.4%) patients with historic race-inclusive GFR estimates were found that allowed for waiting time modification. In these patients, a mean of 753 ± 788 and median of 407 (327, 901) additional days of waiting time was added. The maximum time added for a single patient was 3,323 days (9.1 years). Four of the nineteen (21%) candidates received a deceased donor kidney
transplant within 1 month of waiting time modification.

**Conclusion:** Greater than 50% of patients were eligible for waiting time addition, with an average of >2 years of waiting time added per eligible candidate. Importantly, this modification yielded near immediate impact, with >20% of patients receiving a transplant within the first month of the modification. While the number of black patients on our waiting list is small relative to many centers, this early assessment of the policy impact demonstrates the potential of its intended effects.

#51. Needs Assessment of Internal Medicine Learners in Hospital Medicine Competencies

**Matt Kretschmar**, Kyle Scholton, Trek Langenhan

1Department of Internal Medicine, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA

**Mentor:** Trek Langenhan

**Program:** Internal Medicine

**Type:** Original Research

**Background:** Hospital medicine (HM) is evolving to satisfy health system needs that have been historically underemphasized in Internal Medicine (IM) residency training (inpatient safety, quality, and efficiency). The evolution of the hospitalist’s responsibilities has potentially led to under-prepared IM graduates. Data assessing IM learner confidence/desire for more instruction in these evolving HM competencies is limited. This study aims to gather this data.

**Methods:** Residents (PGY-1-PGY-4) in the UNMC IM residency programs (Traditional, Primary Care, and Medicine-Pediatrics) were surveyed from 4/13/23-7/15/23. Residents were asked if they desired more training in the following HM competency domains: procedures, Point-of-care ultrasound (POCUS), clinical skills, palliative care, transitions of care, patient-level competencies, and healthcare system level competencies. Within these 7 HM competencies, residents were asked to identify their confidence level in related sub-competencies. Forty-four specific sub-competencies were evaluated.

**Results:** Confidence levels for UNMC IM trainees were lowest in procedures (31%), POCUS (36%), and healthcare system level competencies (44%). Confidence levels were highest in transitions of care (81%), patient-level competencies (76%), and clinical skills (72%). Desire for more teaching was highest for POCUS (80.5%), procedures (64%), and healthcare system level competencies (60%).

**Conclusion:** UNMC IM residents lack confidence in procedural skills, POCUS, and healthcare system level competencies. A desire for more training in these areas reflects this lack of confidence. UNMC IM residents have a high level of confidence in transitions of care, patient-level competencies, and clinical skills. Overall, our data suggests UNMC’s residency program’s HM curriculum is strong but may benefit from modification to address areas where residents lack confidence.

#52. Between the Aorta and Superior Mesenteric Artery: A Tale of Duodenal Compression

**Alexandra Fiedler**, Osmaan Shokoor, Luis Zuniga, Peter Mannon

1Department of Internal Medicine, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA
2College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA
3Department of Internal Medicine, Division of Gastroenterology & Hepatology, College of Medicine, University of Nebraska Medical Center, Omaha, NE, USA

**Mentor:** Peter Mannon

**Program:** Internal Medicine

**Type:** Case Report

**Background:** The superior mesenteric artery (SMA), normally embedded in adipose and lymphatic tissue, arises anteriorly from the aorta, and extends caudally at an acute angle (aortomesenteric angle, normally 38-65°). SMA syndrome, an uncommon and potentially life-threatening condition, can occur when the supporting fat pad diminishes letting the SMA compress the 3rd portion of the duodenum (D3) as it passes between the aorta and SMA. We present a severe case of SMA syndrome that questions whether weight loss was the cause or effect of the syndrome.

**Case:** A 69-year-old man presented with several weeks of worsening epigastric abdominal pain, nausea, and vomiting. Months prior, he started experiencing these symptoms intermittently and they had progressively intensified. He associated certain foods as triggers for these symptoms. Despite a deliberate and gradual fifty-pound weight loss through two decades of lifestyle modifications, he abruptly and unintentionally lost ten pounds one month before presenting. Computed tomography demonstrated a 10° aortomesenteric angle and D3 narrowing with proximal dilation (Figure 1). Nasogastric decompression removed over a liter of gastric contents. Esophagogastroduodenoscopy revealed severe esophagitis, gastric erosions and ulcerations, and luminal narrowing of the distal duodenum consistent with extrinsic compression.

**Conclusion:** The diagnosis of SMA syndrome relies on clinical symptoms and supporting radiologic findings, with the most sensitive finding being an aortomesenteric angle ≤ 25°, which was present in this case. It was difficult to ascribe the indolent symptoms in the months prior as causing his weight loss or if the weight loss was a result of early SMA syndrome and its attendant feeding difficulties.

*Names in bold type indicate presenting author.*

![Figure 1](image-url) Features suggestive of superior mesenteric artery (SMA) syndrome including evidence of gastric and duodenal obstruction, aortomesenteric angle of ≤ 25°, and aortomesenteric distance of < 8-10 mm as shown above.