Background: Mayo Clinic recently implemented a new Electronic Health Record (EHR). The EHR replaced several legacy EHR systems and brought all Mayo Clinic locations, including community and academic medical centers, under one EHR. Although one EHR integrates complex systems, the increasing documentation demands placed on providers contribute to burnout. The implementation included changes in how patients are referred, scheduling of appointments, documentation of patient exams, staff-to-staff communication about patients, patient-to-staff communication, ordering tests, medications, and downstream referrals. The Department of Neurology in Rochester, MN, is comprised of a large outpatient and inpatient clinical practice as well as diagnostic and procedural areas. Due to the complexity of all that needed to be learned with this new system, the Department of Neurology saw a need to assemble a multidisciplinary team to assist in efforts of optimizing this new EHR post-implementation.

Objective: Implement an EHR optimization team in the Department of Neurology with the following goals:
- Identify current continuing deficiencies/challenges with the new system.
- Optimize functionality and workflows.
- Develop and disseminate best practices for provider documentation and order standardization.
- Partner with areas that frequently refer to optimize workflows (i.e. Neurosurgery, Radiology, PMR).
- Establish accurate and appropriate visit coding.

Planning: The Department of Neurology is comprised of 160 providers (physicians, advanced practice providers, fellows, and residents) across a variety of locations. A physician and administrative partner led the EHR optimization efforts. During the implementation of the EHR, a proportionate number of providers and allied health staff were assigned as super users. The super users were responsible for assisting staff with navigating the EHR, providing at-the-elbow support, and teaching tips and tricks in how to most efficiently use the system. Neurology capitalized on these super users post-implementation and developed an EHR Optimization Executive Committee and EHR Optimization Team. The Executive Committee is comprised of physicians representing specific areas of the practice (i.e. outpatient, inpatient, pediatrics, labs) along with operations managers representing the allied health staff. The EHR Optimization Team is comprised of physicians, medical secretaries, scheduling staff, nursing, and lab technicians. In addition, there is an EHR trainer and clinical informatics specialist on the team.

Intervention Implemented (Initial 6 months):
- Through observations and solicited feedback, the team prioritized and reviewed 150+ action items.
- Topics were reviewed weekly and categorized by the Medical Director and Operations Manager.
- Change requests were submitted for break/fix issues, high patient safety concerns, and build optimization.
- Short videos (12) were developed to show steps of challenging workflows such as prolonged visit codes.
- EHR weekly tips emailed to all staff across the enterprise encompassing 20 topics.
- Department web site enhanced to include links to weekly tips, quick reference guides and videos.

Results:

<table>
<thead>
<tr>
<th>Providers Feedback Survey (n=52) Results</th>
<th>Activity Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>% Agree</td>
</tr>
<tr>
<td>Education provided by the optimization team has increased provider understanding of EHR.</td>
<td>89%</td>
</tr>
<tr>
<td>Providers feel their feedback related to EHR has been acted on by optimization team.</td>
<td>60%</td>
</tr>
<tr>
<td>Providers believe the team had a positive impact on functionality and efficiency.</td>
<td>75%</td>
</tr>
</tbody>
</table>

Lessons Learned:
- Need to sustain the increased resources post implementation for EHR optimization.
- Include stakeholders from all sites to allow for education and standardization.
- Accommodate learning preferences through multi-modal communication and training tools.
- Engaged providers are integral to meaningful optimization success and reduced burnout.

Next Steps:
- Use information to create an individual provider proficiency assessment tool and training plan
- Focus EHR optimization team efforts to address increased clerical burden for providers

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