Clinical Safety & Effectiveness
Cohort # 21 Team 9

Improve access time to headache patients in UT Medicine Neurology Clinic

Educating for Quality Improvement & Patient Safety
The Team

• Division
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  – Team Member—Jasmine Barrera
  – Team Member –Yolanda Garcia
  – Facilitator—Sherry Martin

• Sponsor Department
  – Neurology
The Neurology Team
OUR AIM STATEMENT

To reduce wait time of our New Patient referrals with headaches from 9 months to 3 months in 50% of our referrals by August 2018.
Background

• Migraine is the MC headache disorder affecting 18% of women, 6% of men and 10% of children in USA

• It is the 6th most disabling illness in the world and 90% of patients are unable to work when they have a migraine

• Healthcare costs and lost productivity costs associated with migraine are estimated to be close to $36 billion annually in US

• 25% of sufferers will benefit from preventive treatment but only 12% receive it

• Poor access to specialists delays care and also increases Emergency room visits increasing health care costs

• 16% of chronic headache patients may be opioid dependent contributing t the opioid epidemic US is facing
Background

- There are currently shortages of neurologists in 40 states. Even those states with adequate supply may have areas of limited access to neurologic care, most often in rural locations. A study in the journal *Neurology* found that the demand for neurologists will grow faster than the supply in the next decade. **In 2012, there was an 11% shortage of neurologists in the United States.** By 2025, that number will grow to a 16% shortage.
- Our Neurology clinic is also facing this shortage as seen by our data suggesting poor access
- This is especially true in our Headache referrals as we lost one provider 2 years ago
Measures and Data Collection Plan

• Outcome Measure: Time from receipt of referral to patient seen in clinic
• Data source: Epic EMR
• Process Measure: Reduction in open slots in the template
• Balance Measure: Patient satisfaction
<table>
<thead>
<tr>
<th>Aim</th>
<th>Primary Drivers</th>
<th>Interventions</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Reduce wait time of 50% of our New Patient referrals with headaches from 9 months to 3 months by August 2018</td>
<td>Inadequate Faculty/Slots</td>
<td>Establish Tandem Clinics (4) Train physician extenders (1)</td>
<td>Tandem clinic established 1 extender trained.</td>
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<td>Reduce no shows by calling patients in advance (2)</td>
<td>Reduced no show rate (16% to 8%)</td>
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<td>Monitor template to fill empty slots (2)</td>
<td>Improvement in slot utilization</td>
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<tr>
<td></td>
<td>Inadequate referral information obtained</td>
<td>Develop new referral forms (3) Add referral form to EMR (4)</td>
<td>Increase in New patients seen (by 63%)</td>
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<td></td>
<td>Referring provider approval</td>
<td>Gain Provider Approval (1)</td>
<td>42 positive Survey results</td>
</tr>
<tr>
<td></td>
<td>Gain Patient approval (1)</td>
<td>4 Survey results (ongoing)</td>
<td></td>
</tr>
</tbody>
</table>
Tandem Clinics

- Started tandem clinics where the faculty saw patients along with Nurse practitioner (NP).
- Patients were seen earlier.
- NP received hands on training from faculty.
- Patients saw NP as part of the team and accepted being seen by them in the future.
- NP achieved enough proficiency to start seeing patients independently with faculty as back-up.
New Headache Patients Seen

![Graph](image.png)
Slot Utilization

• Staff calling patients 1 week in advance to confirm appointments.
• In case of cancellations, slots filled immediately.
• Clinic supervisor monitoring the schedule to fill open slots appropriately.
Slot Utilization
NP-Faculty

May - October

Faculty

Nurse Practitioner

9.3 18
9.3 19
9.3 46
9.3 47
9.3 63
9.3 82
18.3 69.3
18.3 89.3
18.3 109.3
18.3 129.3
May
June
July
August
October
Neurology Referral Form

Date:

Patient Information
Name: Date of Birth: Sex:
Address:
Email address:
Phone Number: Preferred (Home/Cell):
Alternate:

Insurance Information:
Insured person (if not self):
Referring Provider:
Do you have a primary care physician (Y/N)
If Yes name of the Primary care provider:
Reason for the referral: Main Symptom (Please list one only):
Secondary Symptoms:
Presumed diagnosis: (if any)

Have you ever seen a neurologist for this problem (Y/N):
If yes, please provide name and address and dates seen:
Have you been admitted for this problem: (Y/N)
If yes please provide the name of the hospital and the dates:
Goals

• 8 out of 14 new patients (57%) were seen within 3 months of referral date.
• Goal achieved!
# Balance Measure

## Patient Satisfaction

Started patient survey

**Advanced Practice Provider (APP) - New Patient Questionnaire**

Today you were seen by one of our Nurse Practitioner or Physician Assistant (APP). We are interested in your thoughts about this appointment.

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were you pleased with the care provided? Please circle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was there an excessive total visit time from arrival to discharge of &gt; 2 hours?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did he/she consult with the Physician during your appointment?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were you offered the opportunity to ask the physician questions regarding your plan of care?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you leave with a good understanding of your medical condition and plan of care?</td>
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</table>

Any suggestions that may have improved your experience today?

_____________________________________________________________________________________

_____________________________________________________________________________________
Return on Investment

This is an ongoing project and unlike most of the projects this is not about cost savings. It’s about improved access which means:

1. Better patient satisfaction
2. Increased revenue since patients don’t leave the system and are seen timely.
ROI Strategy

• By reducing the patient access time, we can see more patients.
• No new staff was hired
• Therefore, we are seeing more new consults (63% increase)
• 200% increase in income from seeing more new consults from February to November
ROI

XmR Trend
Revenue from New Consults

Average $:
-2000.00  -1000.00  0.00  1000.00  2000.00  3000.00  4000.00  5000.00

February  March  April  May  June  July  August  September  October  November

961.02  802.38  514.54  1053.41  1579.60  2796.54  2394.33  2283.14  607.655  886.36

UCL  CL  LCL
Next Steps

• Started using the referral form for General Neurology, Movement disorders and Neuromuscular disorders

• Identifying patients that can be seen by Extenders with faculty supervision

• EMR adding the data from referral form to the electronic consult order
Thank you!