Removing barriers to cochlear implantation

Start Date: 8/25/2016
Countermeasure implemented: 11/8/2016
Six month re-evaluation: 5/2017

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Disclosures

• None of the authors have financial disclosures
• This talk will include information on the off-label use of cochlear implants
The Problem

Expansions in candidacy mean individuals who were not previously considered candidates now may qualify

Expect increased CI volumes

And yet….

*Internally, implant volume has plateaued*

*Nationally, 10% of candidates receive an implant*
Consequences

Lost opportunity to communicate with loved ones, be successful in the workplace, and maintain a high quality of life.

Failure to deliver patients the most appropriate options for their hearing healthcare.
Barriers

Most people who could benefit from cochlear implants are unaware of this option.

Many providers are uncomfortable with current cochlear implant candidacy criteria and still view cochlear implants as a last resort.

Implants may be viewed as a threat to an established business model and hearing healthcare delivery system.
Solutions for Value Enhancement (SoLVE)

• 12-week application-based problem-solving training program
• Multidisciplinary teams learn through classroom sessions and completing a project with the support of a coach
Solutions for Value Enhancement Process

<table>
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<th>Understanding Problem</th>
<th>Setting Goals</th>
<th>Generating Buy-In</th>
<th>Implementing Change</th>
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| • Collected data to confirm/define problem  
• Plotted process map to understand current state  
• Conducted root cause analysis  
• Developed problem statement | • Determined key performance indicators  
• Developed AIM statement of desired future state | • Determined stakeholders  
• Considered feasible countermeasures  
• Developed case for change that appealed to emotional and rational | • Introduced new approach  
• Educated stakeholders  
• PDCA (Plan, Do, Consider, Act) |
Chart Review: May – August 2016

3,086 hearing tests

150 candidates for CI Eval

Patients referred for CI evaluation
Does the Cleveland Clinic have the same problem as the rest of the United States?
Aim #1

Recommendations for Cochlear Implant Evaluation by CCF Head and Neck Institute Providers

Percent of Candidates with CI Eval Recommended

- Straightforward Candidates (Meeting FDA Criteria): 45%
- More Subtle Candidates (Outside FDA Criteria): 15%

Before Intervention
Aim #1

Recommendations for Cochlear Implant Evaluation by CCF Head and Neck Institute Providers

Percent of Candidates with CI Eval Recommended

Before Intervention | After Intervention

Straightforward Candidates (Meeting FDA Criteria)
- GOAL = 75%
- Before Intervention: 45%
- After Intervention: 15%

More Subtle Candidates (Outside FDA Criteria)
- GOAL = 40%
- Before Intervention: 15%
- After Intervention: 15%
**Aim #2**

Pre-Intervention CCF Provider Confidence Discussing Cochlear Implant Candidacy with Patients (N=46)

- **85%** Somewhat Confident or Less
- **15%** Very Confident
- **12%** Somewhat Confident
- **8%** Neutral
- **57%** Somewhat Unconfident or Less

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How can we encourage more referrals?

Quick – no added time to evaluation

Easy – no need to know candidacy guidelines

Comfortable – identifying candidates for evaluation not implantation
Development of Candidacy Tool

Word Recognition <60% in at least the poorer ear

Both ears

At least the poorer ear

Word Recognition <60% in at least the poorer ear

COMMERCIAL INSURANCE CI Evaluation Candidacy

MEDICARE/MEDICAID CI Evaluation Candidacy

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Development of Candidacy Tool
Implementation of Candidacy Tool

IS MY PATIENT A CANDIDATE FOR A COCHLEAR IMPLANT EVALUATION?

HOW TO USE THE CI EVALUATION CANDIDACY TOOL:

1. DETERMINE INSURANCE COVERAGE
   - Medicare/Medicaid? (green shading)
   - Commercial? (blue shading)

2. LINE UP THE BOX ON THE TOOL WITH THE AUDIOGRAM AND ASK THE FOLLOWING QUESTIONS:
   - Do pure tone thresholds fall in the shaded region?
   - Does word recognition meet the guidelines?

If you answer YES to both of these questions, provide patient with information on scheduling cochlear implant evaluation.

If word recognition meets criteria but pure tones are outside range, route to OTOL HEARING IMPLANT pool.

STILL NOT SURE?
Route the chart to OTOL HEARING IMPLANT pool for review

HEARING IMPLANT PROGRAM
(216) 444-0354
hipteam@ccf.org

• Succinct instructions
• Created OTOL HEARING IMPLANT POOL in EPIC
• Provided contact info
Implementation of Candidacy Tool

- Printed and distributed
- Available on Sharepoint
- Available as dot phrase in EPIC for AVS
Post-Intervention Survey

100% The cochlear implant candidacy tool is quick and easy to use

89% I anticipate using the cochlear implant candidacy tool regularly in my practice

82% When I have recommended a cochlear implant evaluation, the process to put in an order and have the patient scheduled has been straightforward

65% More people may be candidates for cochlear implants than I realized
Results Three Weeks Post-Intervention: Aim #2

Post-Intervention CCF Provider Confidence Discussing Cochlear Implant Candidacy with Patients (N=36)

- Very Confident
- Somewhat Confident
- Neutral
- Somewhat Unconfident
- Not Confident

92% Somewhat Confident or More
Recommendations for Cochlear Implant Evaluation by CCF Head and Neck Institute Providers

GOAL

Percent of Candidates with Evaluation Recommended

Before Intervention  Three Weeks After Intervention

Straightforward Candidates (Meeting FDA Criteria)  More Subtle Candidates (Outside FDA Criteria)
Recommendations for Cochlear Implant Evaluation by CCF Head and Neck Institute Providers

- Straightforward Candidates (Meeting FDA Criteria)
- More Subtle Candidates (Outside FDA Criteria)

Before Intervention
Three Weeks After Intervention
Six Months After Intervention

GOAL
Referral for Cochlear Implant Evaluation from within HNI

Percent of Implant Evaluations Referred from Within HNI

Before Intervention: 30
Six Months After Intervention: 84

54% increase

GOAL
Sustainability

• Encouraging use of tool for *every* hearing loss
• Maintaining motivation when patients are not interested
• Updating as criteria change
• Access for candidates
Long Term Aim Statement

• Increase total CI recipients
• Improve accessibility
• Maintain and continue to improve identification of candidates
  • Internally
  • Externally
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Every life deserves world class care.