## Ensuring procedural safety in primary care:
### Procedural time-outs and mechanisms for improvement

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### Problem
- Wrong site, wrong procedure, and wrong person can be prevented with the use of a pre-procedure verification list. A time-out should be performed and documented for procedures defined as "invasive" when it involves puncture or incision of the skin, or involves the insertion of an instrument or foreign material into the body, and the procedure exposes a patient to more than a minimal risk of a significant complication.
- While standard for procedure in the operating room and procedure areas, there are a number of procedures performed in primary care for which time-outs are warranted. Previously, there were no consistent standards to define which other procedures performed, 1:1 with a patient, were considered invasive and when a pre-procedure time-out was needed, and it was left up to the individual physician.

### AIM
- To identify all procedures being performed in primary care which are considered invasive and standardize documentation;
- To ensure and improve patient safety during these procedures as defined by documented time-outs.

### Intervention including context and measurement
- BIDMC’s HealthCare Associates (HCA) is a large academic adult primary care practice for almost 42,000 patients.
- Quality improvement and clinic leaders were surveyed about procedures performed and those considered invasive.
- We ran report of these procedures by billing and reviewed with QI leaders to ensure all procedures were captured and confirmed safety precautions and documentation standards.

### Interactions:
- Initially billing reports were run quarterly (every 90-days) to identify invasive procedures performed in HCA and medical record audits of documentation of a pre-procedural time-out were conducted.
  - Rates were reported and reviewed at the HCA QI Committee.
  - Quarterly report of the rates of documentation of procedural time-outs and emails to inform providers about its importance.
- When rates of improvement were not sustained, frequency of audits and reports were performed monthly.
- Macros were developed for procedural notes which included documentation of time-out, and shared with all providers.
- Rates of documentation initially improved again but subsequently, dropped.
- In addition to monthly audits, Individualized emails were instituted to alert any provider who had performed a procedure which did not have a time-out documented.
- After improvements were demonstrated, we returned to quarterly audits. However, performance gains were not sustained and we returned to monthly audits and emails.

### Approach to assess performance and success
- Using billing, identify all procedures performed in measurement period.
- Medical record audit is conducted. Rates of documentation of time out are measured and tracked.
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<th>FINDINGS TO DATE</th>
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| ![Graph showing procedural documentation rates](chart.png) | - Report of performance rates, informing providers of performance, and development of macros and templates for procedures all increased documentation rates, but using these strategies alone, improvements are not sustained over time.  
- Given the relative low frequency of procedures, timely and individualized emails to providers performing the procedures is needed to demonstrate more sustained improvements. | - Continue review and tracking  
- Provide updates in HCA QI Committee and HCA Newsletter  
- Provide education to new incoming residents and providers |