

Decreasing Biopsy Specimen Error Through Initiating a Standardized Biopsy Collection Process

Dermatology Residency Program
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BACKGROUND

Skin biopsies are an integral part of diagnosing dermatological conditions. Proper labeling and delivery of specimens to the pathology lab is of utmost importance to ensure accuracy of diagnoses.

Amid busy clinic days with a variety of staff participating in the biopsy process, standardization can be lost and steps may be missed. As a result, specimens may be mis-labeled or inadvertently not placed into a specimen cup at all. This not only can lead to a delay of care for our patients, but can potentially lead to significant morbidity or mortality if a treatment is completed or not completed based off an inaccurate diagnosis.

Having a standardized protocol which is verified by all providers involved in the biopsy process can significantly reduce these adverse events.

AIM STATEMENT

By March 2023, a standardized biopsy protocol for each patient will result in zero mis-labeled or missing specimens submitted to the pathology lab by dermatology residents over the course of 3 months.

MUSC Pillar: Quality – Increase Culture of Safety Composite

METHODS/INTERVENTION

A standardized protocol for obtaining biopsies was developed and distributed to residents and nurses in the Rutledge Tower Resident Continuity Clinic. This process consisted of a checklist to be signed by both resident and nurse at the time of biopsy. The checklist consisted of 4 items: 1) confirmation that pathology order was placed prior to biopsy, 2) confirmation that the pathology order was printed prior to biopsy, 3) confirmation of correct patient label on cup, and 4) confirmation that specimen is present inside of cup. Any biopsy errors were reported to the resident QI leader throughout the data collection period.

RESULTS

Pre-intervention			Post-intervention		
Month	Total # mis-labeled / missing specimens	Detected prior to delivery to lab?	Month	Total # mis-labeled / missing specimens	Detected prior to delivery to lab?
August	1	Yes	November	0	N/A
September	1	No	December	0	N/A
October	1	Yes	January	1	Yes

CONCLUSIONS

Our specific aim of having zero biopsy errors was met with a result of one error after the intervention was started. However, this error was detected prior to specimen delivery to the pathology lab and occurred when the biopsy checklist was not utilized. Therefore, zero errors were reported by the pathology lab.

BARRIERS:

- With frequently rotating clinic staff, the biopsy checklist was not always included on the biopsy tray.
- To solve the above issue, the checklists were alternatively placed in the physician office for residents to bring to each room when performing a biopsy, however compliance remained a concern.
- Some providers felt that individually signing each item on the checklist was too time-consuming.

NEXT STEPS

Consider creating an epic alert to replace the paper process in order to mitigate the above barriers.