

BACKGROUND

Bone marrow biopsies are an essential tool for the evaluation and diagnosis of hematopoietic system disorders.

From literature review (Cantadori et al., 2019), “bone marrow clot analysis increases sensitivity to diagnose hemopathies and offers the possibility of morphological evaluation and anatomopathological study, with the advantage of not needing decalcification process, hence improving antigenic expression in immunohistochemical and FISH techniques”.

After discussion with hematopathology department, completing aspirate clots with adult bone marrow biopsies at MUSC could improve their ability to diagnose hemopathies and possibly decrease the number of repeat biopsies needed by making an otherwise unviable specimen viable.

AIM STATEMENT

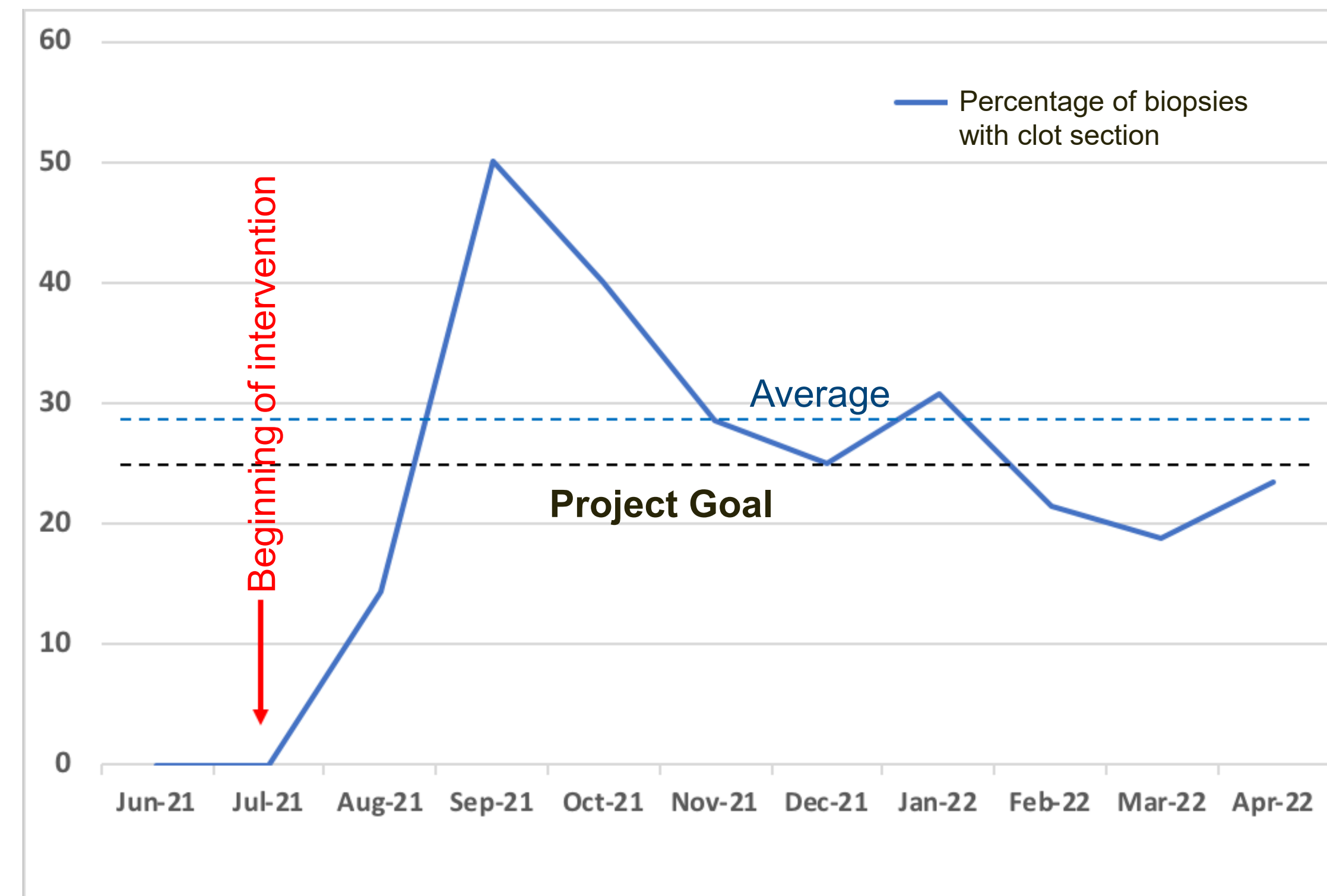
Increase in aspirate clots sent with adult inpatient bone marrow biopsies from baseline of 0% to 25% by December 2021.

MUSC Pillar: Quality (Increase inpatient quality care component).

METHODS/INTERVENTION

- Physician education including Hem/Onc Fellows on technique of obtaining aspirate clots while doing Bone marrow biopsy.
- Incorporated a check list for all Bone marrow biopsy done during inpatient stay on ART (Ashley River Tower) 7th to collect aspirate clot with bone marrow biopsy procedure.
- Assure with hematopathology aspirate clots are being collected correctly.
- Frequent communication with Hema path to monitor for samples lacking Clot aspirate.

RESULTS



CONCLUSIONS

Overall project goal (28% vs 25%) was met. However a few months were below 25%.

A decline was observed in the percentage of collected clot samples over time of project.

This is believed to be due to barriers mentioned below after root cause analysis.

Communication with hematopathology confirmed that the clot sections sent during our intervention months, improved morphological evaluation and aided in ability to send additional testing that is unable to be completed on decalcified core biopsies.

BARRIERS:

- Increased work load made it difficult to complete additional collection step of clot section.
- Needed more standardization of clot collection process and better upfront education.

NEXT STEPS

- Include standard technique for obtaining clot section with bone marrow biopsies in the upfront education process for new fellows when they are in orientation.
- Assure current fellows are aware of standardized approach.
- Continue to assure checklist is available on 7th floor of ART for review.
- Continue to improve and set an stretch goal of 50% to achieve by December 2022.