



# Pivoting During a Pandemic: Creation of an Oncology Procedure Team

Jina Saltzman PA-C, Alisa Heitman, NP-C, Caroline Trotman PA-C



## Background

- Bone marrow biopsies and lumbar punctures (LPs) are both vital procedures in diagnosing, monitoring, and treating hematologic malignancies.
- Prior to the onset of the COVID-19 pandemic in 2020, our tertiary academic center's elective oncology procedures were booked out months in advance and patients with urgent needs had to be overbooked, putting undue stress on the entire system. While the outpatient clinics had template availability, there were not enough providers to perform oncology procedures.
- From August 2019-April 2020, average utilization of available outpatient bone marrow biopsy template space was -4.2%, demonstrating that procedures were being overbooked due to lack of provider availability.
- Simultaneously, the inpatient Advanced Practice (APP) Leukemia team was newly developed in 2019 and there were not enough trained advanced practice providers (APPs) to perform the procedures needed, while the training of new staff was becoming burdensome to the credentialed staff.

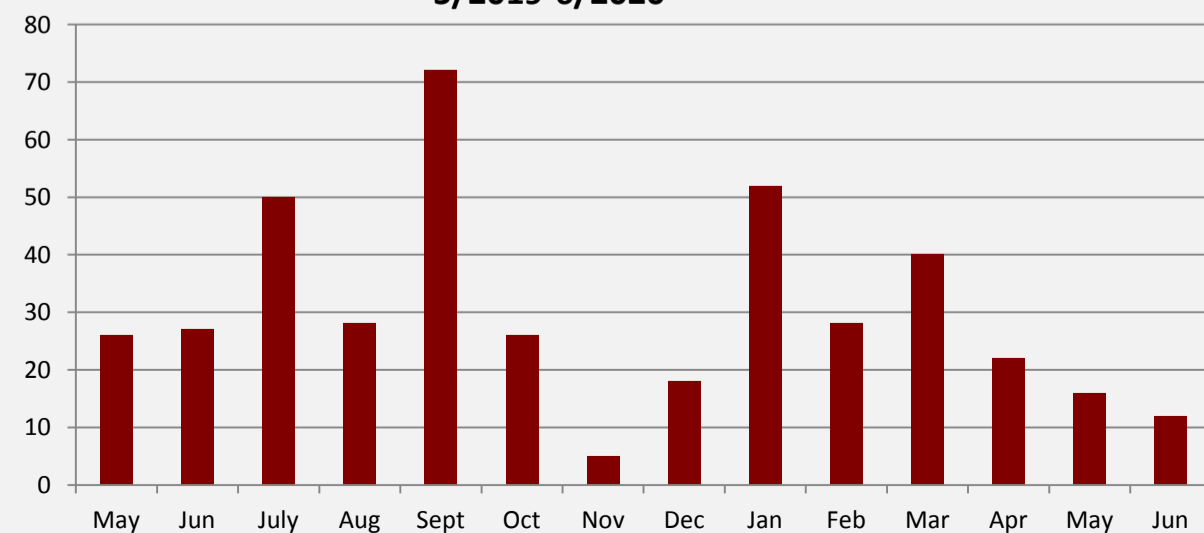
## Objective

- We aimed to re-deploy inpatient Cellular Therapy APPs to improve access to inpatient and outpatient procedures while maintaining consistent staffing of the inpatient APP services.
- We also sought to avoid furlough of APP staff during the COVID-19 pandemic, but rather to re-deploy staff in creative and productive ways that aligned with their knowledge base.

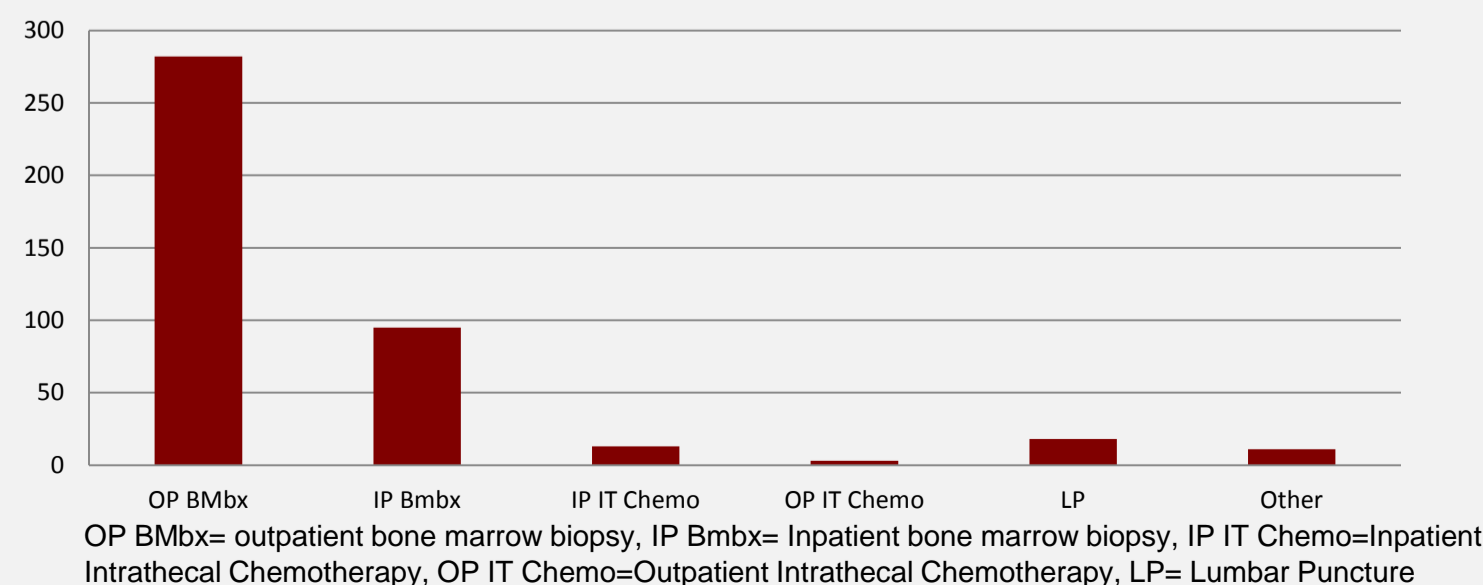
## Methods

- During the first wave of the pandemic (3/2020-7/2020), the inpatient APP Cellular Therapy Service (APP-CT) patient census was intentionally lowered due to concerns about the safety of proceeding with stem cell transplants and cellular therapies. In May 2020, to better utilize the team's staffing resources, the APP-CT service piloted an Oncology Procedure Team to perform bone marrow biopsies and LPs in the adult inpatient and outpatient settings.
- APPs on APP-CT volunteered as proceduralists for overstaffed shifts and a procedure schedule was created and emailed to outpatient providers and support staff. Template space was dedicated to these APPs.
- A Virtual Hematology-Oncology procedure pager was established and carried 7 days/week, used for both inpatient and outpatient procedures. Inpatient and outpatient add-on requests were emailed or paged.
- Credentialed APPs trained new APPs in bone marrow biopsies and lumbar punctures to increase the number of trained proceduralists.
- A dedicated proceduralist was available on average 8.5 days/month from May 2020 to June 2021.

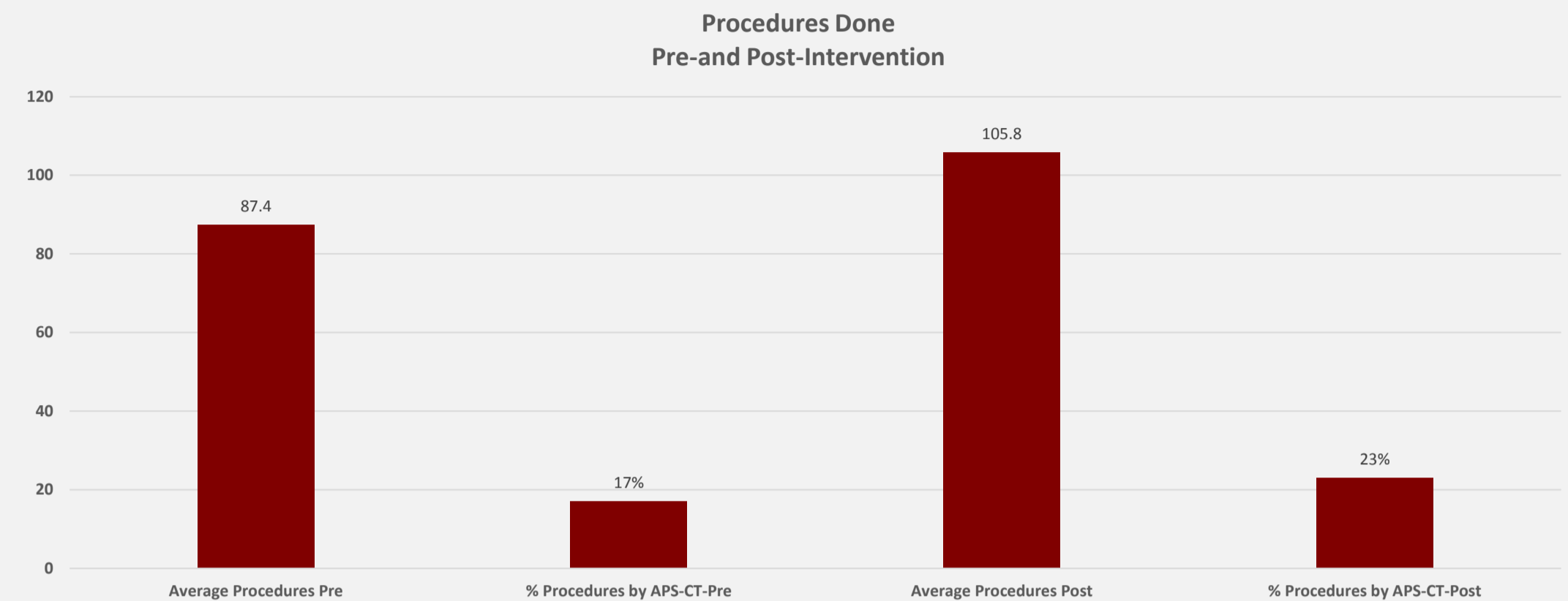
**Total Procedures by Month**  
 5/2019-6/2020



**Total Procedure by Type**



## Results



- Monthly average of Procedures pre-intervention was 87.4 with APP-CT performing 17%
- Monthly average of procedures post-intervention 105.8 with APP-CT performing 23%
- Post-intervention, APP-CT revenue for bone marrow biopsies and lumbar punctures with intrathecal chemotherapy was \$582,311 without any additional FTE requirements.
- By shifting qualified inpatient APPs that would otherwise have been overstaffed, we were able to increase capacity and access for essential procedures. Hematology/Oncology fellows (HONC) that were in need of bone marrow biopsy training for their fellowship program were able to train with APPs.

## Conclusions and Implications

- The creation of the Oncology Procedure Team re-deployed staff during the COVID-19 crisis, increased access to necessary oncology procedures, decreased wait times, relieved stress from the outpatient teams, trained HONC fellows, and utilized staff in a creative and productive way that improved work satisfaction.
- We increased procedure availability and procedures performed and decreased the number of overbooked procedures that needed to be added on to busy outpatient providers' schedules, thereby eliminating scheduling stresses for staff at multiple levels of the system.
- We also increased provider job satisfaction for providers who desired to do more procedures, created increased ability to train new providers on these procedures, and were able to help improve access to urgently needed inpatient procedures.
- We continue to utilize inpatient APP-CT staff members to cover a standing outpatient procedure template and assist with urgent inpatient procedures. We have increased the number of APPs competent in both bone marrow biopsies and LPs.
- Our APP proceduralists continue to be requested to train new HONC fellows, which demonstrates department-wide confidence in APP procedural skills.

## Acknowledgements

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