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Articulators are an important tool to dental technicians as most of the study models are required to mount on the articulators before sending it back to the clinicians. Sometimes, due to the influx of the study models sent to dental lab 5, it has resulted in insufficient articulators for the technicians to use. A team from dental lab 5 has been formed to resolve this hassle.



To ensure proper management of articulators so that every technician in dental laboratory 5 has sufficient articulators to work on in 3 month time.

Root Cause Analysis

Problem Statement: Insufficient Articulators in Dental Lab 5 Why is it happening? 1. Ratio of Patients to Articulators is imbalance. 2. More Patient than Articulators. Why? 3. The Articulator is used to mount up the Patients case till the case is issued. 4. Sometimes it will require few weeks to months before the case is issued. 5. Patients' appointment is beyond Laboratory's control.

Figure 1

The team analyzed the root cause using the 'five whys' technique as shown in Figure 1. They realized the issue was not due to insufficient articulators, but rather the issue arose because of the management of articulator.

Our Solutions

- All technicians at dental lab 5 to receive the same number of articulators.
- All technicians are to be responsible for maintenance and management of the articulators.
- All technicians will be issued with a 'new' type of articulator- which is more durable and flexible so that study models can be mounted easily.
- As part of the communication plan, technicians from dental lab 5 will send out cases without articulators to clinicians.

Old Articulator (Multiple Articulators, Single Magnet Plates)

- •Unstable Bite / Complex / Full Denture cases.
- Require specific instruction for mounting (raise bite to a certain degree).



New Articulator (Single Articulators, Multiple Magnet Plates)

- Stable Bite / Partial / Simple / Immediate cases.
- •Doesn't require specific instruction for mounting.



Percentage of articulators available at the end of the day at Lab 5 [13 Nov 2017] Intervention 2: **Enforcement of sending out cases** [24 Oct 2017] Intervention 1: One without articulators New Articulator was given to each of them. [Few cases can be shared using this articulator by doing the markings on the model]

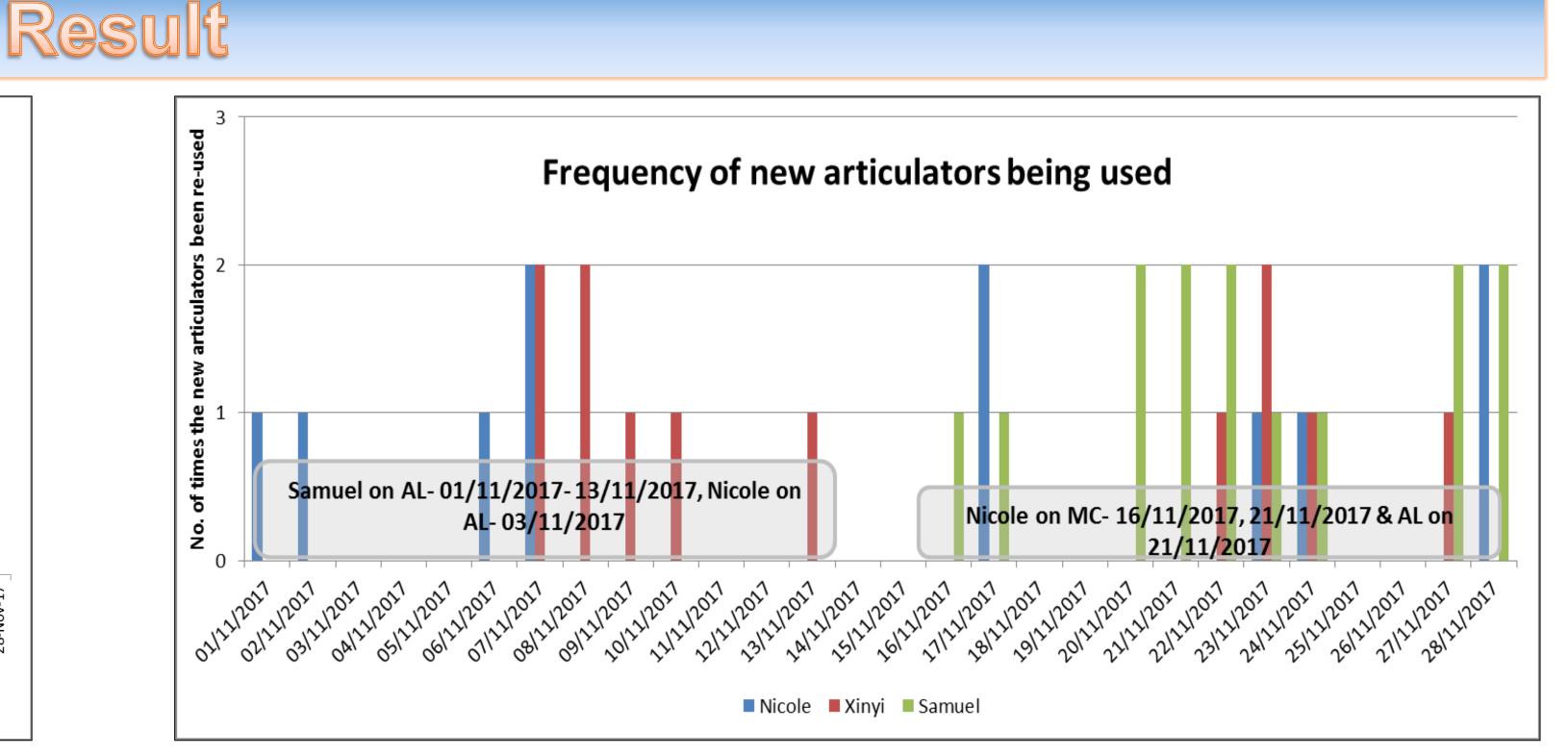


Figure 2

The team piloted the different Plan-Do-Study Act (PDSAs) to determine if their interventions helped to improve their management of articulators. The run-chart in Figure 2 have shown the effectiveness of their interventions as the team tracked the number of articulators available at the end of the day as well as the frequency of the new articulators being used.

Learnings from our improvement Journey

- > The team has collected feedback for improvement and thus far the clinic has been receptive to the new interventions.
- > The hassle has been resolved with better articulator management.
- Good team work is required to tackle the hassle together.
- > The team is continually improving the process of the articulator management by:
 - Working on the identification of measurement of the model on the new articulator
 - Creating an unique identification of the new articulator