

# To Reduce The Mean Weekly Radiograph repeats in Radiology Department in NDCS

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## Aim(s):

To reduce the mean weekly Radiograph repeats in Radiology Department from 2.80% by 20% to 2.24% by December 2013

- Detailed and accurate dental radiographs are a primary diagnostic tool as well as necessary for and during some treatments. During x-ray, patients will be exposed to some form of radiation. Hence, it is essential that radiograph repeats be kept to a minimum.
- Based on the baseline data from Week 1-4 in Sep-13, the mean weekly radiograph repeats is about 2.8%
- An improvement project team is setup on 18 Sep 2013 to focus on reducing the radiograph repeats in Radiology Department

## Methodology:

- The problem was analysed through a cause and effect analysis and through the PDSA Cycle. The team discovered the following root causes and the corresponding changes were implemented at different stages and effects tracked.

Cycle #	Root Cause	Description of change	Date of trial	Changes institutionalised
PDSA 1	Patients - lack of understanding on proper biting techniques	Standardised instructions and pictorial guide to show instruct patients on proper biting techniques	30 Sep-04 Oct 2013	Implemented on 05 Oct 2013
PDSA 2	Radiology Staff - No training in school on dental radiographic critique	Engage experienced clinician, Dr Chee Hoe Kit to train the Radiology staff on Radiograph Critique	30-Oct-13	-
PDSA 3	Nil (Low hanging fruit). The team felt that radiograph repeats due to artifacts can be prevented if there's printout to show patients with language barrier	Artifact pictorial guide to show patients with language barrier	26-29 Nov 2013	Implemented on 30 Nov 2013

## Result

The mean weekly Radiograph repeats has reduced by 25% after the implementation of changes at different stages.