1643 Quality Assessment of Intra-Oral Radiography Within Two Hospitals in South Wales, UK: A Two-Cycle Audit and Introduction to The Updated 2020 Public Health England Quality Grading System

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Aim: To evaluate the quality of intra-oral radiographs taken within two hospitals in South Wales, United Kingdom, and assess the impact of radiographer training, with the aim of reducing the percentage of undiagnostic radiographs to 10% or less in accordance with national performance targets.

Method: Details of intra-oral periapical and occlusal radiographs taken in the two hospitals between the 1st July 2015 and the 30th June 2016 were retrieved. 100 radiographs were randomly selected and assessed. Change was then implemented in the delivery of radiographer training workshops, which involved two hours of both didactic teaching and hands-on skills training. There were 10 workshops and 52 attendees. A second audit cycle was completed, with a further 100 radiographs randomly selected from the 1st December 2018 and 30th April 2019. **Results:** There was a 33.2% reduction of undiagnostic radiographs, bringing the total down to 6.3%, meeting the standards of the audit. Feedback from the workshops were also extremely positive; 50% of radiographers grading the quality of the workshops at 10/10.

Conclusions: The workshops were successful in improving the quality of intra-oral radiographs, therefore improving the quality of this service. This blueprint can be shared amongst other hospitals, to sustainably improve the overall quality of dental radiography in the hospital setting. Recent updated guidance in 2020 introduced a new two-point scale radiograph grading system: 'Acceptable' and, 'not acceptable'. Radiographs graded as, 'not acceptable', should account for no more than 5% of radiographs. Future audit cycles will follow this new grading system and standard.