



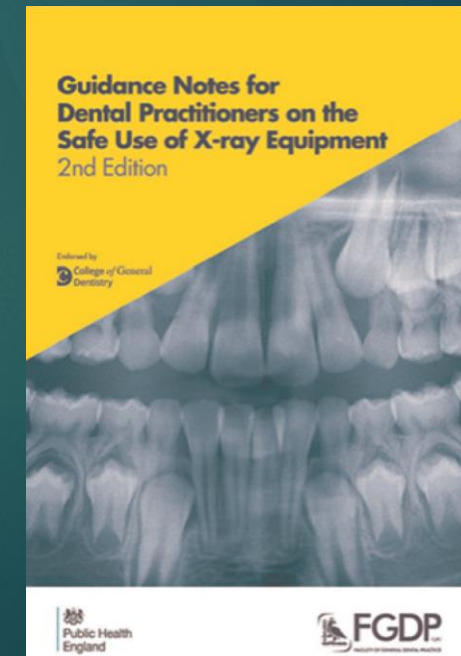
RADIOGRAPH QUALITY ASSURANCE AUDIT (5th Cycle: July-Dec 2025)

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BACKGROUND

- **IR(ME)R 2017** – The employer has a legal duty to ensure provision of clinical audit.
- **FGDP Guidance** – A QA programme is required to ensure consistent production of diagnostic-quality radiographs while minimising patient dose.
- Image quality analysis should be undertaken **at least every 6 months**.
- The recommended sample size should be **not less than 100 radiographs**.



AIMS & OBJECTIVE

- ▶ To evaluate the quality and documentation of intraoral radiographs in the clinic and DCU theatre, ensure adherence to established standards, and identify strategies to maintain diagnostically acceptable radiographs while minimizing errors.

STANDARDS FOR THE QUALITY OF RADIOGRAPHS

Quality rating	Basis	Target for digital imaging
Diagnostically acceptable (A)	No errors or minimal errors in either patient preparation, exposure, positioning, image (receptor) processing or image reconstruction and of sufficient image quality to answer the clinical question	Not less than 95%
Diagnostically not acceptable (N)	Errors in either patient preparation, exposure, positioning, image (receptor) processing or image reconstruction which render the image diagnostically unacceptable	Not greater than 5%

METHODS

- ▶ Clinical retrospective audit
- ▶ Fifth cycle ran from July 2025 – December 2025
- ▶ All radiographs taken in the Paediatric Dentistry department (clinic or theatre) which were recorded in the radiograph log-book
- ▶ Quality ratings Grade 1/2/3 and Acceptable/Unacceptable with corresponding targets used as standards
- ▶ Cross checking DCU theatre log-book with the office log-book

RESULTS - July – Dec 2025.

- ▶ 84 radiographs recorded in the logbook.
- ▶ Total Clinic X-rays: 16 (approx. 19% of total)
- ▶ Total Theatre X-rays: 68 (approx. 81% of total)

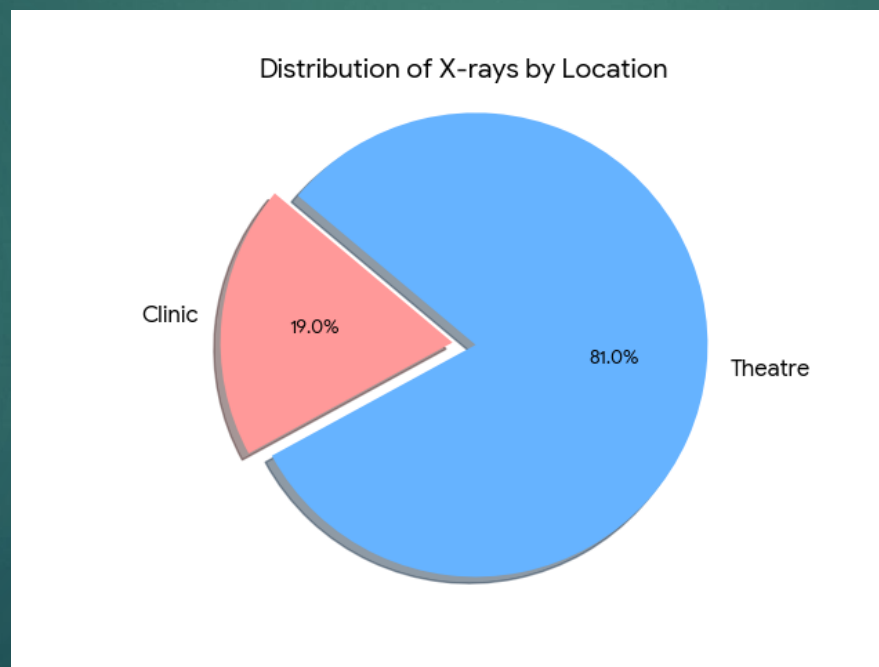
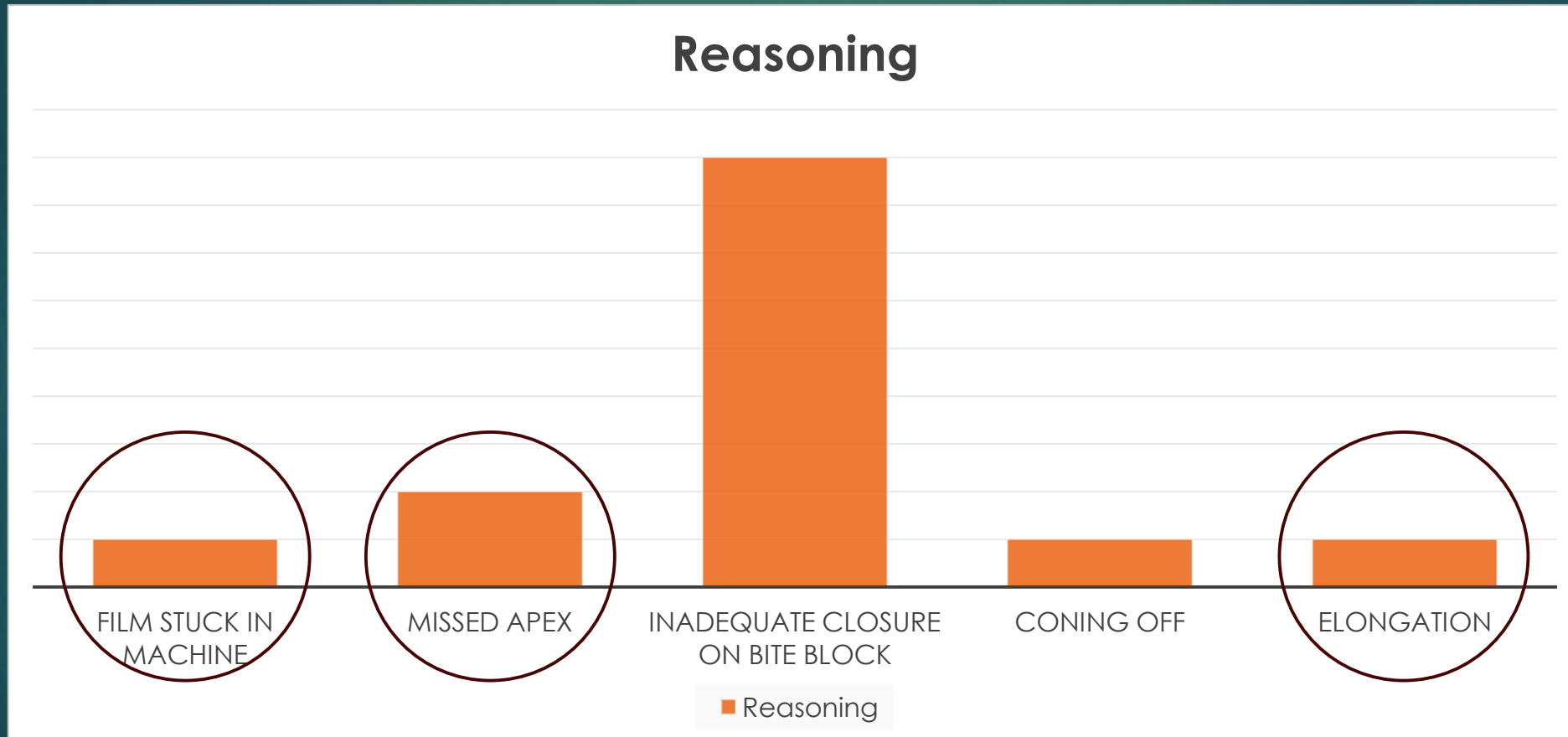


IMAGE GRADING

Category	Standards	Percentage	Outcome
Acceptable (Grade 1 & 2)	Not less than 95%	96.2%	Met
Unacceptable (Grade 3)	Not greater than 5%	3.8%	Met

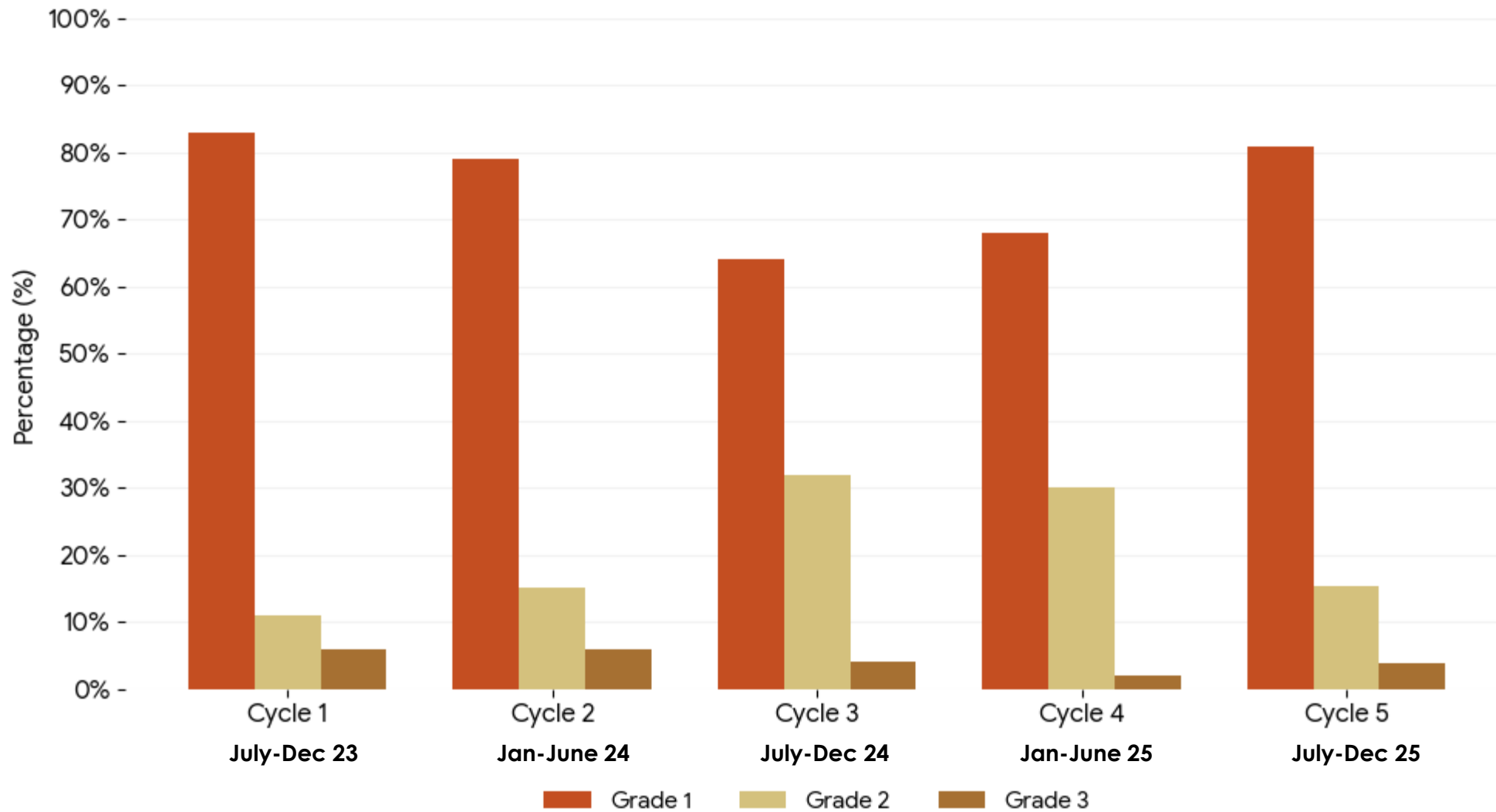
- The unacceptable X-rays (Grade 3) is primarily taken in clinic and driven by positioning errors, specifically: Conning off, Elongation, Missed Apex
- Other minor contributors: processing errors

ANALYSIS OF GRADE 2 AND 3

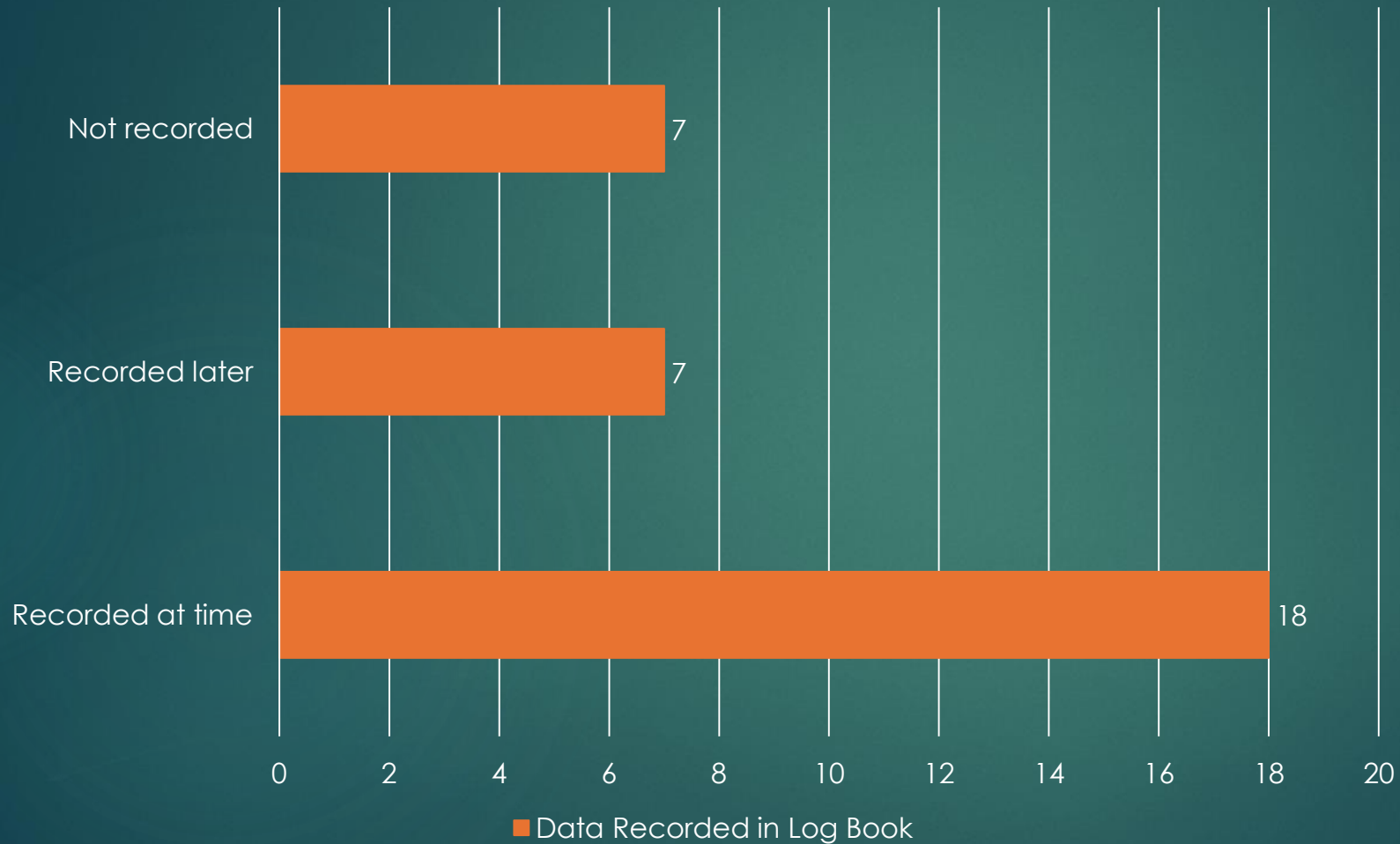


Grade 3

Comparison With Previous Cycles



Audit of compliance with Radiograph Quality



Total Radiographs taken
in DCU theatre: **32**

ENSURING RADIOGRAPH QUALITY: CONCLUSION & RECOMMENDATIONS

- ▶ Clinicians should consistently record all radiographs in log-books (office and DCU theatre) for complete tracking.
- ▶ Maintain audit standards: Diagnostically Acceptable $\geq 95\%$, Not Acceptable $\leq 5\%$.
- ▶ Emphasize proper positioning to avoid missed apices or coning off.
- ▶ Continue regular audits to monitor standards and reinforce best practices.