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Strategies for coordinating and streamlining audits



Purpose of clinical trial audit

Safety

- > Introduction of new techniques
- Validation for trial purposes
- Reassurance for investigator sites
- Identification of problems
 - Mechanical issues
 - Dosimetry issues

Consistency

> Across all recruiting sites



Progression of audit through trials

- Individual trial audit
 - > CHART, START, RTO1, PARSPORT
- CTRad addressing RT research 2009
 - Support for centralised QA



- RTTQA central funding 2010
 - Coordination of QA programmes
- Increase in number and complexity of trials
- Increase site participation and patient recruitment



Streamlining

- Why we want/need to do it?
 - Reduce QA associated workload for sites
 - Reduce workload for RTTQA
- Benefits
 - QA approve sites for trial recruitment in a shorter timescale
 - Faster accrual of patients to trials



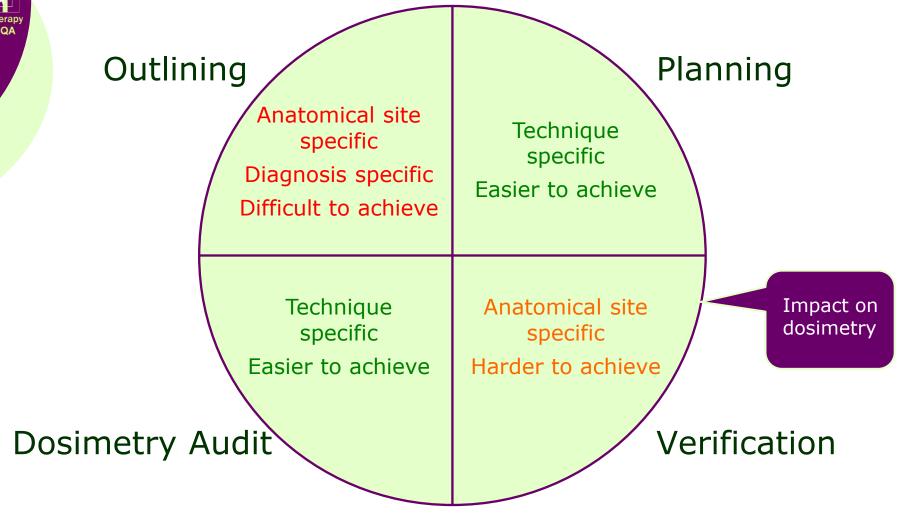
Components of clinical trial audit

- Clinical aspects
 - Outlining
 - > Planning
 - Verification
 - Dosimetry audit

Consistency is key



Streamlining individual components





National streamlining through trials

Participation in a number of trials

Streamlining according to anatomical site

Streamlining according to delivery technique

RECTUM

ARISTOTLE, COPERNICUS, TREC
Outlining and planning

BREAST

Outlining, planning and dosimetry audit
BIG – 23 sites recruiting, 5 test plans
FF - 46 centres recruiting, 5 dosimetry audit

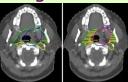
LUNG

IDEAL, I-START, ISOTOXIC LUNG IMRT Outlining, planning and IMRT dosimetry audit



HEAD AND NECK

ART-DECO, De-ESCALATE, NIMRAD
Outlining, planning and dosimetry audit





International streamlining GHG

- UK sites approved for recruitment into international trials as a result of UK IMRT credentialing
 - ➤ EORTC 3 sites
 - > TROG 1 site





- Dosimetry audit report shared, comments on gamma analysis, amended report, acceptance
- Streamlining nomenclature
 - Naming of QA processes
 - Naming of volumes

- Physics Contribution

 Standardizing Naming Conventions in Radiation Oncology

 Lakshmi Santanam, Ph.D.,* Coen Hurkmans, Ph.D.,† Sasa Mutic, Ph.D.,*

 Corine van Vliet-Vroegindeweij, Ph.D.,† Scott Brame, Ph.D.,* William Straube, M.S.,*

 James Galvin, D.Sc.,† Prabhakar Tripuraneni, M.D.,* Jeff Michalski, M.D.,*

 and Walter Bosch, D.Sc.**
- Multiple volumes with different dose levels
- Future analysis
- RTTQA adoption for new trials



Summary

- RTTQA infrastructure supports streamlining of processes
- Reduced workload and timely recruitment to trials
- National streamlining
 - Across trials multiple trial participation
 - Across audit groups collaborative working
- International streamlining
- Increase site participation and patient recruitment