

Scoring Metrics: 1 (low) to 5 (high)

- **Applicability/Reach:** How broad is the reach of this use case to routine clinical use?
- **Safety:** What is the value or impact of the use case in terms of improved or enhanced patient safety?
- **Technical Ease of Implementation:** How easy is the use case to implement?
- **Industry Alignment:** How well does the use case align with strategic initiatives in the industry? (e.g. ASTRO initiatives and guidelines)

Anonymization of Clinical Radiotherapy Data Summary

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Overview of the Use Case

Health Insurance Portability and Accountability Act (HIPAA)

- The Privacy Rule: Protects an individual's health care information known as PHI
- The Security Rule: Requires administrative, physical, and technical safeguards for electronic PHI (ePHI)

The Problem

- Transfer of anonymized patient specific data required by the vendor for troubleshooting of systems is not currently available
- Cooperative development of radiotherapy techniques for difficult or unique cases between different vendor TPS is not feasible
- Patient data required for clinical trials QA and storage requires standardization and anonymization in DICOM RT format

The Solution

- Anonymization transfer standards for DICOM RT data from radiotherapy systems (e.g. treatment planning, treatment management, PACS) needs to be developed
- Secure encrypted electronic transfer of data using a range of export avenues (e.g. SFTP, removable storage) must be available.
- User defined DICOM tags and data (e.g. images, plan, dose, DVH) transfer along with user defined templates shall be available.

The Benefit

- Vendors will be able to support client systems efficiently by evaluating system development & operational problems with clinical patient data.
- Various facilities will be able to cooperatively work on a wide range of clinical and research challenges!

Issues for Discussion

- Under HIPAA, PHI that is linked based on a list of 18 identifiers must be treated with special care. **Shall more identifiers** shall be included.
- **Anonymization vs. De-identification:** De-identification of data is the removal or replacement of personal identifiers so that it could, but would be difficult to reestablish a link between the individual and data. Anonymization refers to the irreversible removal of personal identifiers

Scoring Metric: Applicability / Reach

- Vendors will be more effectively to remotely support routine clinical use in a timely fashion.
- Any clinics can collaborate and share insights to improve routine clinical use

Scoring Metric: Safety

- Patients' health care information can be protected because of confidentiality

Scoring Metric: Technical Ease of Implementation

- Techniques to accomplish this Use Case have been established and widely used. It should be straightforward for vendors to implement.

Scoring Metric: Industry Alignment

- HIPAA requires administrative, physical, and technical safeguards from both clinics and vendors.
- Furthermore, effective and efficient support from vendors would benefit both parties.
- Therefore, the implementation of the Use Case will meet mutual interest of both clinics and vendors