|  |
| --- |
| 4D Image Import for Radiation Therapy Planning (4DRO)  |
| Date Created: | December 16th, 2016 | Last Revised: |  |
| Profile Completion Date: |  | Profile Implementation Date: |  |
| Author(s): | Scott W. Hadley |
| Description: |
| This profile would determine the data elements that would need to be included in CT, MRI and other medical imaging scans such that data consumers will be able to read and interpret 4D scans for use in radiation therapy treatment planning. |
| **Rationale for Profile Creation:** |
| Different vendors in imaging domains have implemented 4D imaging in different ways. Radiotherapy is primarily interested in respiratory correlated imaging which many imaging vendors are not familiar with. Right now, data consumers cannot rely on single implementation to know the ordering or breathing phases and the relationship between the volume scans of a 4D acquisition. This causes end users to manual edit scan information and manual creation of 4D objects in planning system. Manual editing can lead to errors and cause safety issues in the planning process. |
| Clinical Impact: |
| This profile would have several benefits for different stakeholders. For vendors, it will eliminate confusion about how to implement a 4D imaging set for export for other systems. For data consumers, it will setup a reliable data format to import and prepare 4D data for treatment planning. For end users, it will eliminate manual data entry and process steps that can be done incorrectly. It will save time and frustration in preparing data for treatment planning. |

Use Cases: Simple paragraphs explaining the different ways this profile may be used in the clinic.