

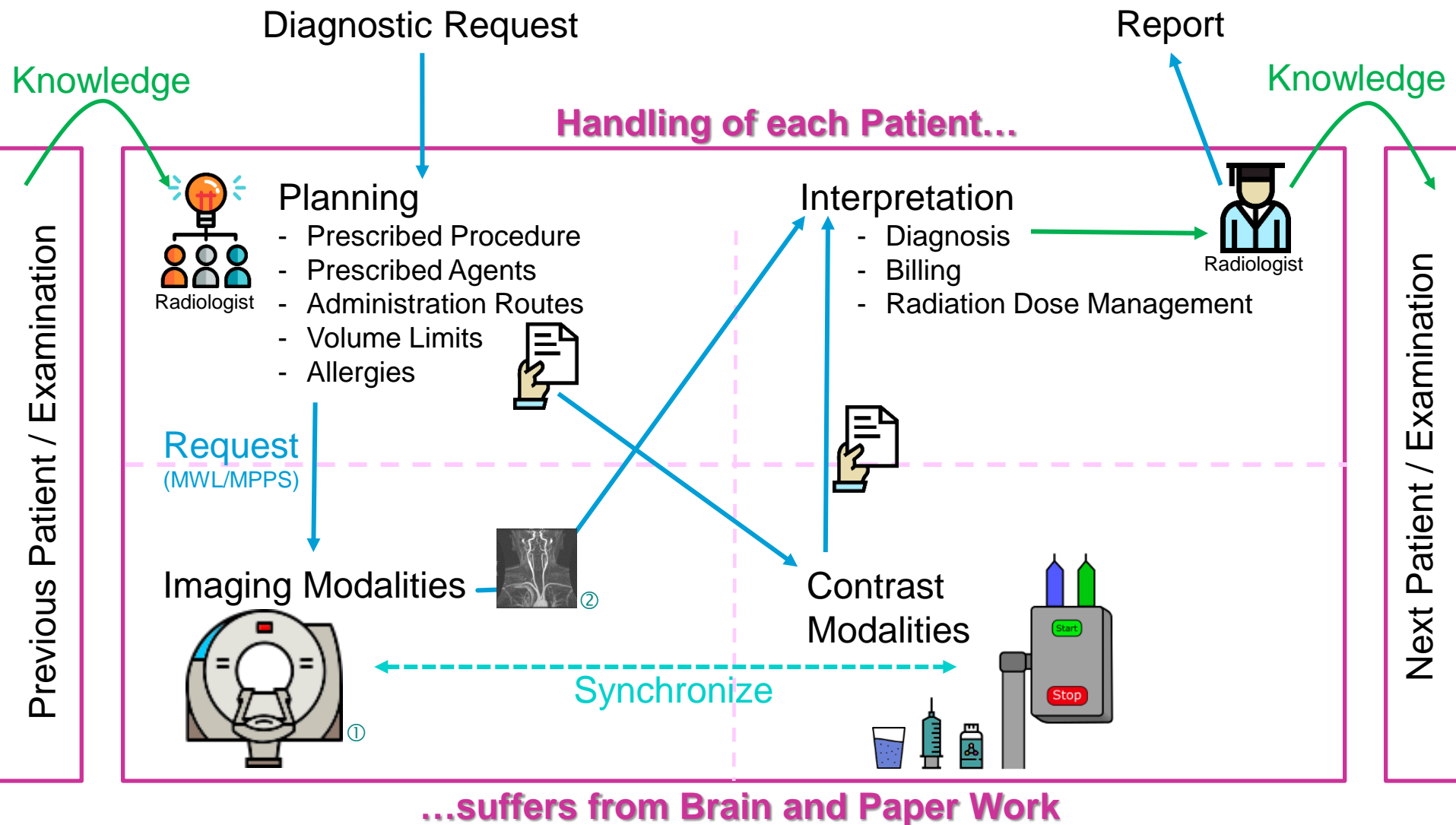
DICOM WG-06 Supplement 164

Structured Reporting for Contrast Agent Administration

***By Sridhar Balasubramanian (Bayer)
Uwe Tronnier, Prof. Dr. (CSImed, MEDTRON AG)
Steffen Baumann (Guerbet)***

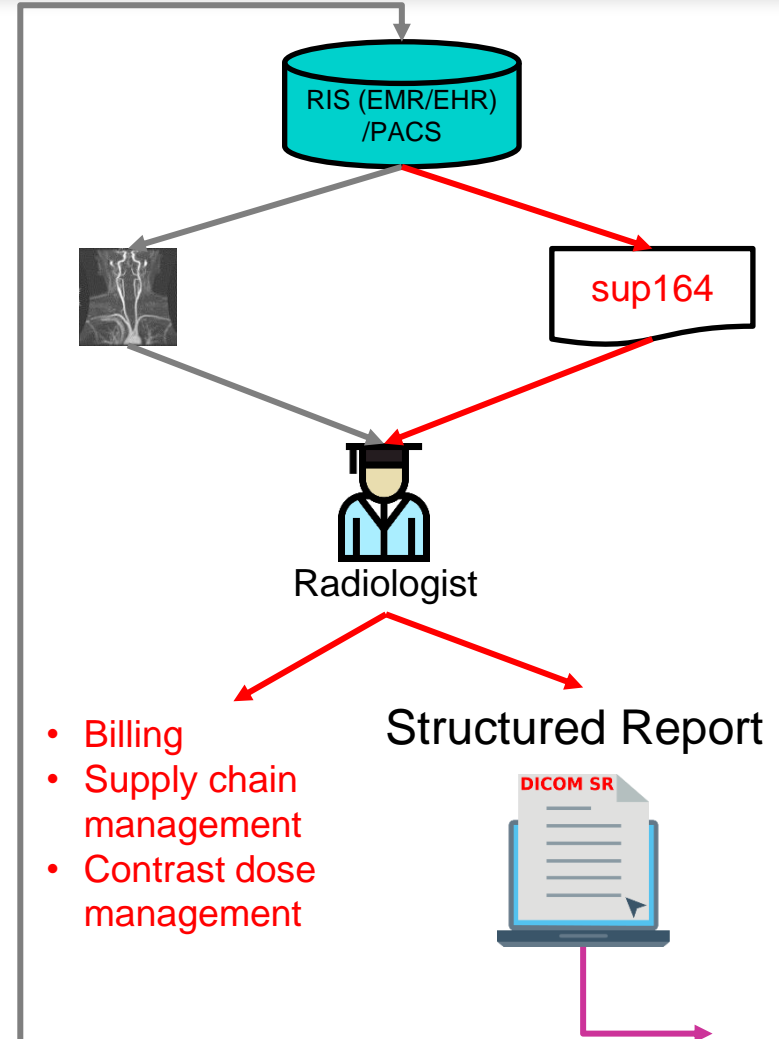
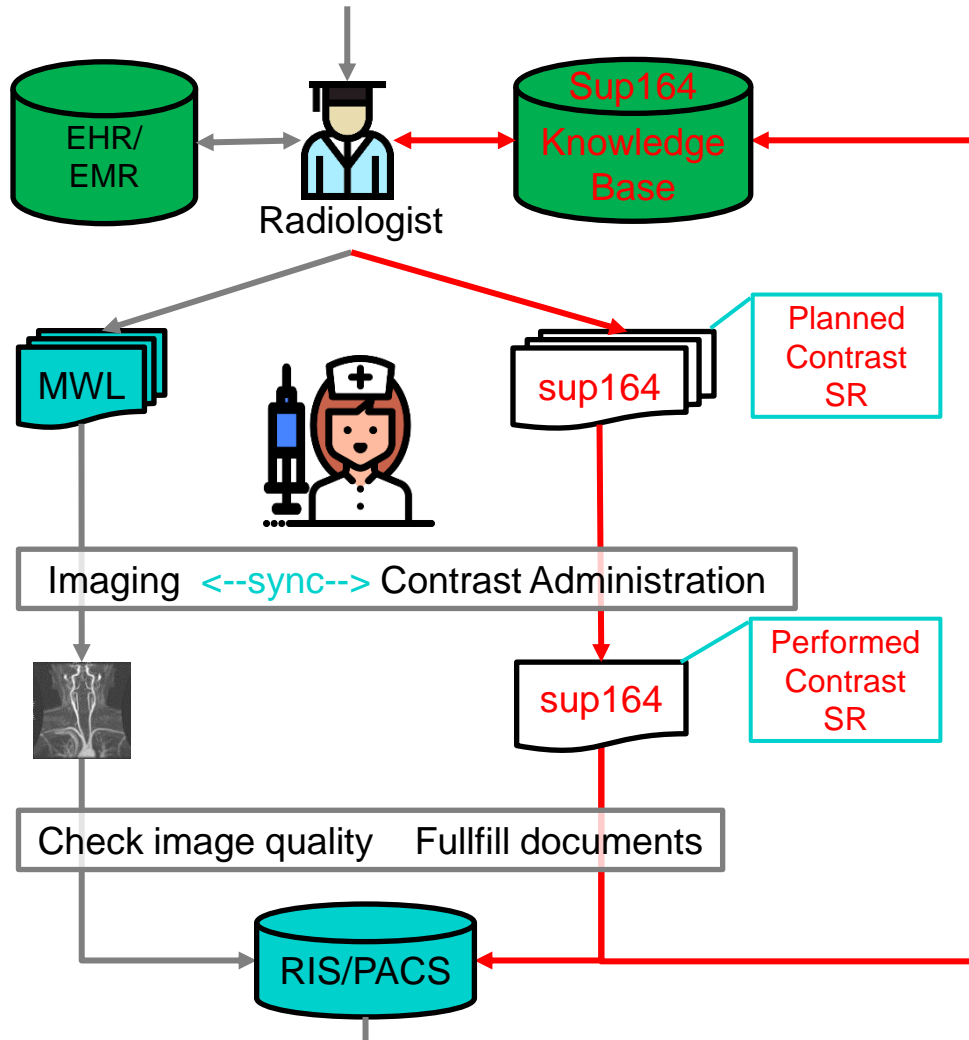
- **Sup164 will replace paper documents/records and provide a standard template for all injector vendors**
- **Sup164 is the working title of Imaging Agent Administration Structured Report (IAASR)**
- **Structured report will allow**
 - tracking of Contrast Media (Iodine, Gadolinium (GD)) and ability to retrieve patients who were injected in past
 - monitor safety of patients: recording of patient conditions such as allergies and other conditions
 - repeat of a protocol by having the details of a patient protocol available
 - managing contrast media consumption (purchasing and tracking purposes)
 - distribution and sharing the injection report with Radiology IT systems

Today's Daily Routine in Radiological Departments

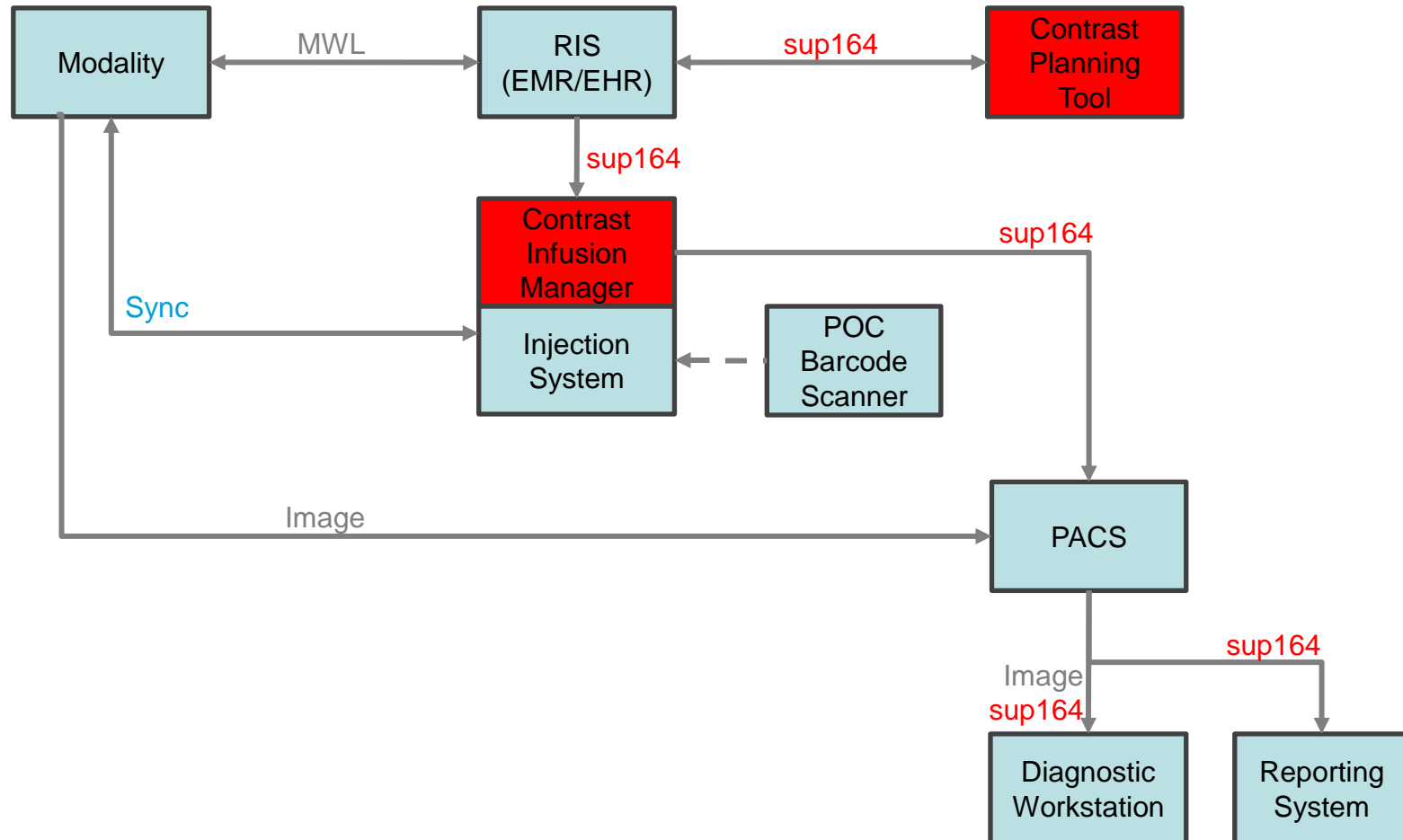


New Contrast SR Workflow of Patient's Data

→ Diagnostic Request



Contrast SR Components



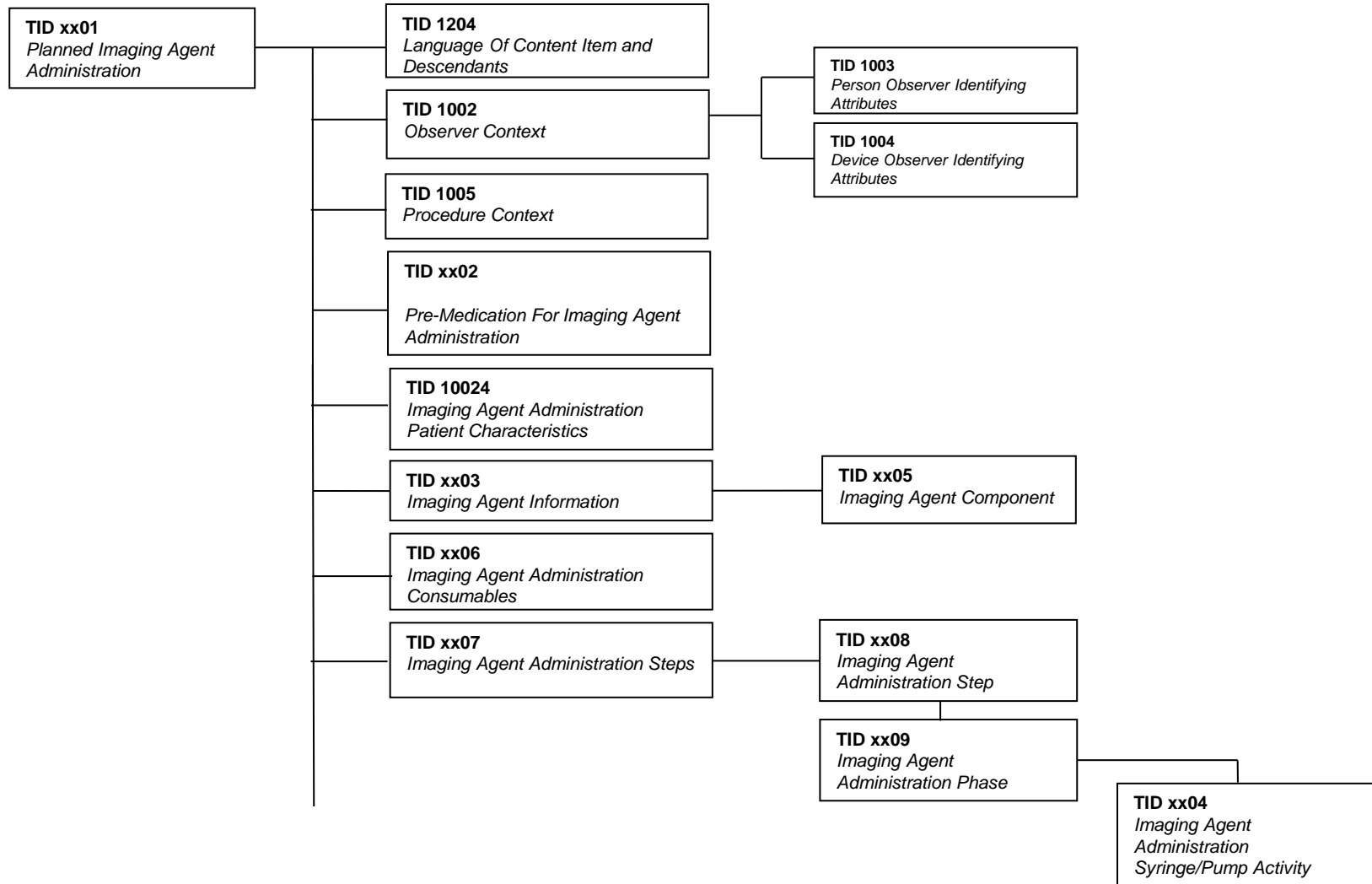
Contrast Report Levels

Each report provides

1. the context about the patient and administration, the agents, and consumables,
2. the steps in administration, including pre-medication, different routes and agents, step timing, etc.,
3. the phases with each step, giving the flow rate, curve, pressures, detailed timing, etc.

These are either for the intended administration, to be reviewed by the clinicians and sent to the syringe/pump system (plan), or the performed administration that is reported by the syringe/pump system.

Template structure (plan)



The Imaging Agent Administration SR (IAASR)

- **uses established RIS (EMR/EHR) / PACS for data storage**
 - **is parsable for**
 - computer aided reporting,
 - radiology reporting systems (Voice Dictation),
 - contrast dose management,
 - supply chain management and
 - billing
- ... and therefore useful for several stakeholders in the imaging workflow!**

The Imaging Agent Administration SR (IAASR) will

- extend SR features to contrast media,
- aid in workflow optimization,
- replace paper documents,
- increase quality standards of imaging facilities,
- support knowledge base for contrast media,
- be independent of contrast injector vendor solutions,
- include Contrast Agent Administration Plans & the actual Performed Contrast Agent Administrations.



Improve internal visibility of planned & performed injection procedures

The Imaging Agent Administration SR (IAASR) will also

- **fullfill data recording requirements / recommendation (varies by global region) and**
- **assist in the importance of traceability and data recording: Iodine (CT, Interventional Radiology/Cardiology) and Gadolinium (Gd) consumption can have severe health impacts**
 - CT, Interventional Radiology/Cardiology: sufficient time needs to be allowed in-between injections
 - MRI - growing concern around cumulative gadolinium (Gd): Gd retention in brain, NSF is still a concern as well



The IAASR will benefit all stakeholders in medical imaging by

- replacing paperwork & reducing human error,
- simplifying workflow of imaging agent administration,
- supporting long term storage of plans and performed actions,
- improving internal visibility of planned & performed injection procedures,
- tracking consumption of Contrast Media (Iodine, Gadolinium (GD) and ability to retrieve patients who were injected in past,
- assisting management in complying with reporting recommendations/requirements and
- monitor safety of patients

Affiliations:

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