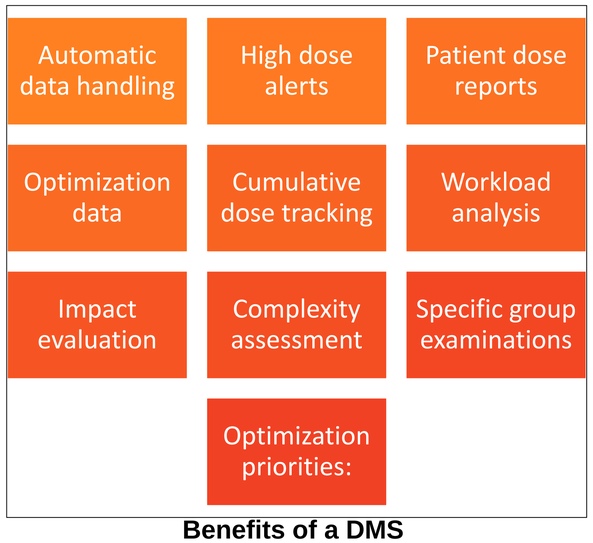
2nd PANHELLENIC CONGRESS OF MEDICAL PHYSICS
4-6 OCTOBER 2024| EUGENIDES FOUNDATION

Dose Management Systems in Interventional Radiology

Anousis E.[1], Nikolea S.[1], Puckett Anastasiou A.[1], Tsitsiou S I.[1]
[1]Department of Medicine, MSc Medical Physics-Radiation Physics, University of Patras, Greece

Background

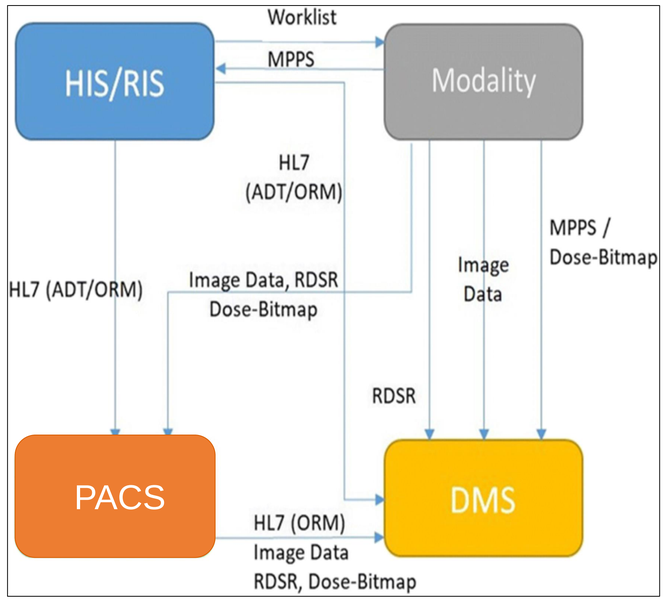
- A need for an automated solution for data configuration and analysis for justification and optimization of radiological procedures remains essential.
- Patient and staff orientated.
- Dose Management Systems (DMS) are capable of handling huge volumes of data
- Potential human error risk reduction.



Benefits of a DMS

Materials and Methods

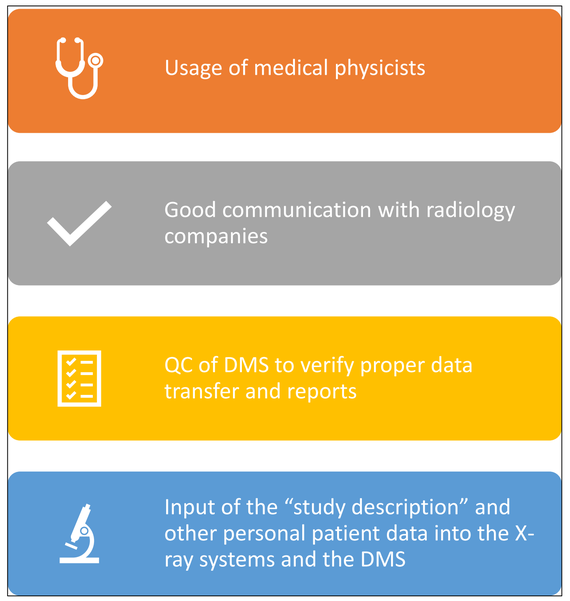
- Existing literature review.
- Important information extraction, in order to put together a summary of DMS systems.



Workflow of a DMS

Results

- Dose management systems (DMS): crucial in interventional radiology.
- Further enhancing the safety of patients and staff.



Requirements for DMS

Conclusion

- Effective DMS requires expertise from medical physicists, regular software QC, and accurate data entry.
- Reliance on human input and integration issues could be a concern.
- Future advancements, including automation, AI, and advanced algorithms, promise to further optimize radiation doses
- Creation of a "smart" healthcare environment.
- Further innovations will transform radiation management.
- Can lead in ameliorated patient outcomes and decreased radiation exposure risks.