



Aims and Benefits of Audit by Specialty: Nuclear Medicine



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Disclosures

- I do not have any conflict of interest to disclose

What is Nuclear Medicine ?

- A **multidisciplinary** field in medicine in which medical specialists (nuclear medicine physicians, physicists, radiochemists, radiopharmacists and technologists) collaborate
- Using medical **radioisotopes** for diagnosis and therapy
- **Diverse portfolio** of clinical applications : patient referrals from (almost) all other clinical specialities (oncology, cardiology, infectious diseases, neurology, the surgical disciplines, etc. etc.)
- Large **diversity of technologies** : PET/CT, SPECT/CT, radioligand-based therapies

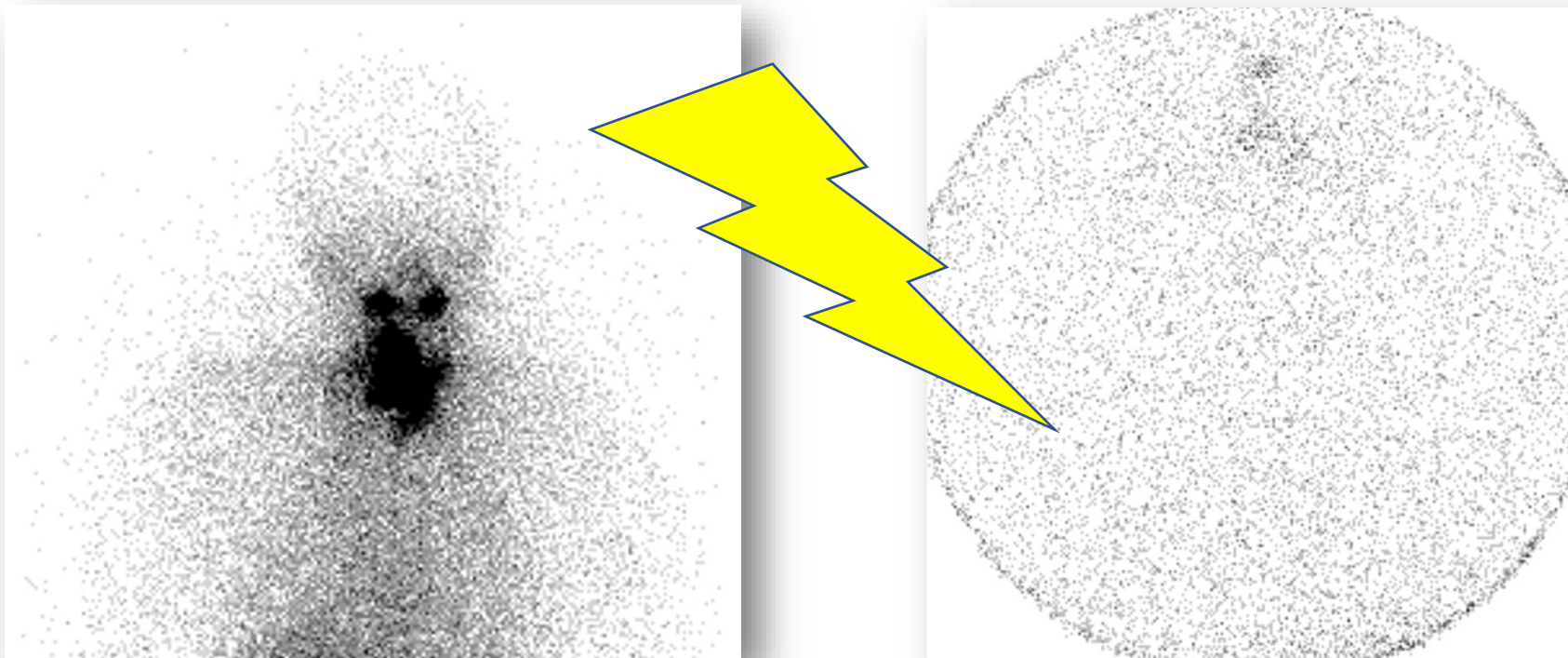
Nuclear Medicine and “Standards for good medical radiological procedures” according to the EU-BSS definition

- The only specialty that uses open radioactive sources in medicine
- The challenge of working with radioisotopes with short half-lives, the need to produce many radiopharmaceuticals on-site
- The challenge of generating evidence levels for novel radiopharmaceuticals, especially for diagnostic radiopharmaceuticals

Nuclear Medicine and “Standards for good medical radiological procedures” according to the EU-BSS definition

- The use of modern devices and the optimization of procedures and protocols
 - increased sensitivity,
 - full dynamic information over a prolonged period of time,
 - decreased radiation burden
- Justification of the use of ionizing radiation : we take it very seriously !

The example of **THERANOSTICS** in Nuclear Medicine :
providing the full cycle of diagnosis, personalized treatment
selection, tailored precision therapy and follow-up

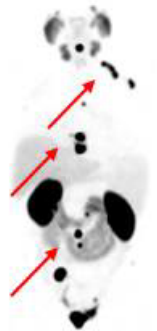


More than 75 years :
our roots in imaging and treatment of thyroid cancer patients

The example of **THERANOSTICS** in Nuclear Medicine : providing the full cycle of diagnosis, personalized treatment selection, tailored precision therapy and follow-up

First human **therapy** with ^{177}Lu -labeled **PSMA617**

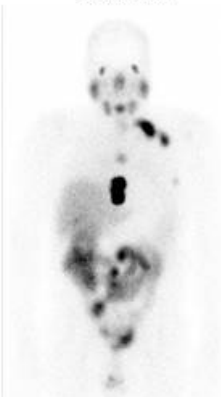
Imaging
 ^{68}Ga -11-HBED-CC
December 13



PSA level 14



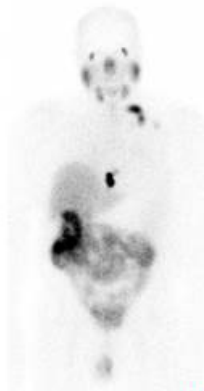
3,3 GBq
 ^{177}Lu -617
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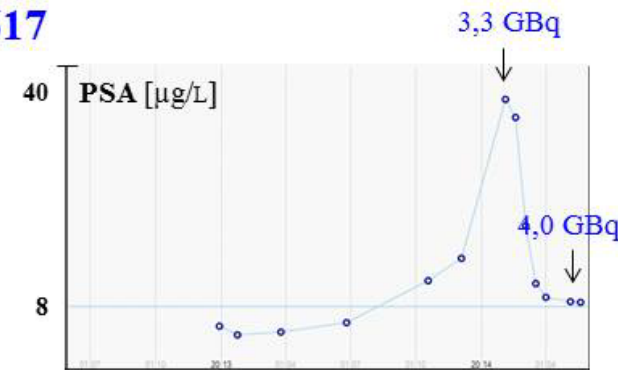
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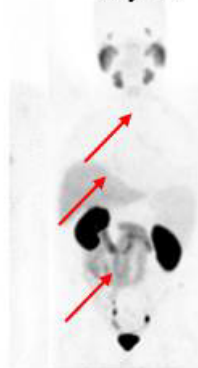
4,0 GBq
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PSA level 8



Imaging
 ^{68}Ga -11-HBED-CC
July 14



Practice-changing innovation :

PSMA targeting for diagnosis and
therapy in prostate cancer patients

Nuclear Medicine and Clinical Audit

- ✓ ... structured review of procedures ...
- ✓ ... improve the quality and outcome of patient care ...
- ✓ ... practices, procedures and results are examined against agreed standards ...
- ✓ ... modification of practices, where appropriate ...
- ✓ ... application of new standards if necessary ...

U-BSS definition of CLINICAL AUDITS: 2013/59/EURATOM Chapter II, Article 4, (12):

Thank you for your attention

