

Securing Radiopharmaceuticals Preparation Practices Through a Scenario-Based Training Program

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WHAT WAS DONE

The preparation of radiopharmaceuticals (RPs) is a critical step requiring strict quality and safety standards. This project aimed to:

- 1 - Perform a **retrospective analysis of the adverse events** (AEs) declared in our nuclear medicine department (NMD) over the past 4 years
- 2 - Develop an innovative **training program** based on **scenario analysis**, inspired from the most common and critical AEs

WHY IT WAS DONE

Securing the radiopharmaceutical drugs circuit and strengthening the quality and safety processes within our NMD

HOW IT WAS DONE

1 - Single-center retrospective analysis of AEs within our NMD

- Status report on AEs conducted from January 1, 2021, to December 31, 2024, to **map risk areas**
- Classification into five categories based on the patient's pathway:

Organization – Patient care – Premises/environment – **Medication pathway** – Radiation protection – Hospital life

2 - Training based on a new approach: scenario analysis

- A** - Wooclap® knowledge assessment questionnaire
 - Assessment of initial knowledge level
- B** - Viewing videos based on the “spot the mistake” concept
 - Group debriefing
- C** - Reassessment of knowledge using the same questionnaire
 - Assessment of the impact of the training

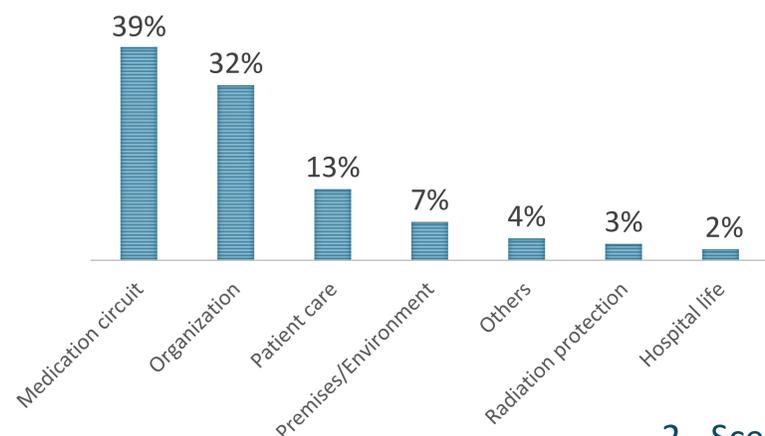
WHAT WAS ACHIVED

1 - Single-center retrospective analysis of AEs within our NMD

Total distribution of AE declarations from the NMD :

N = 223 EI

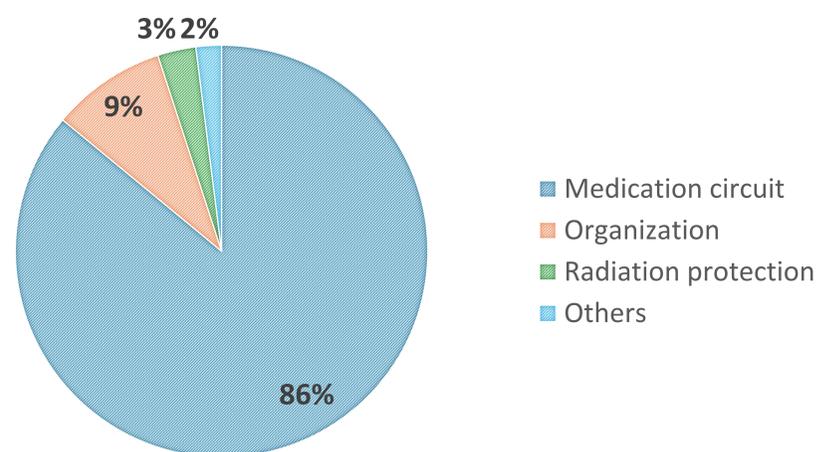
Activity sector	AEs claims
SPECT	116 (52%)
PET	92 (41.3%)
Therapy	14 (6.3%)
Other	1 (0.4%)



Distribution of AE declarations from the radiopharmacy laboratory :

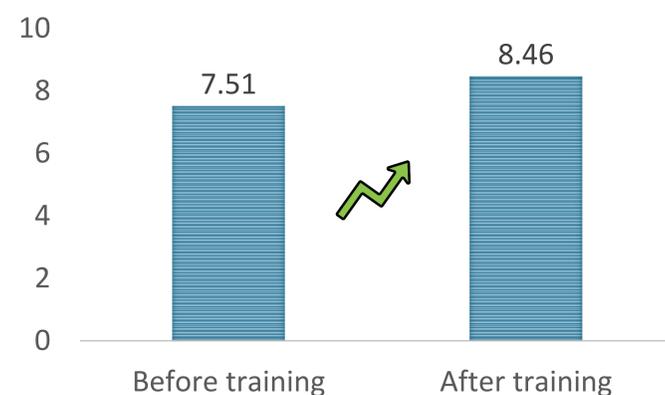
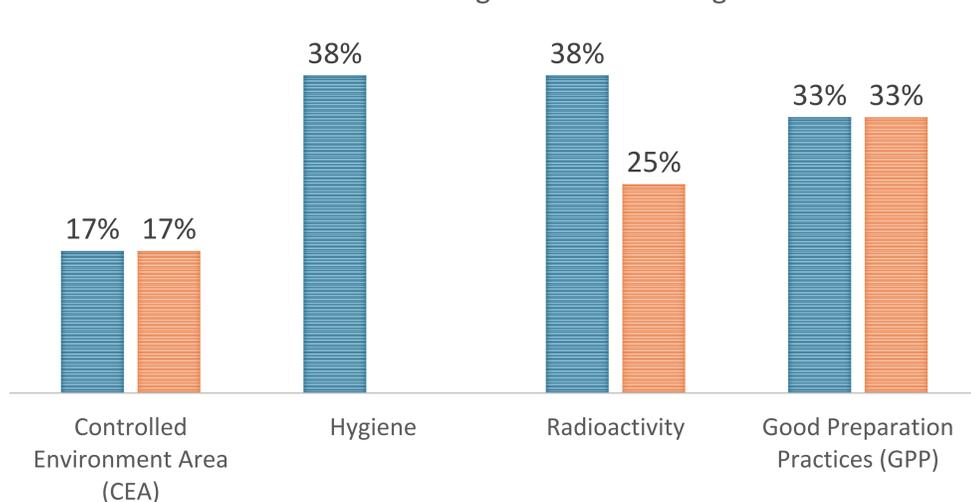
N = 63 EI

Activity sector	AEs claims
SPECT	44 (70%)
PET	17 (27%)
Therapy	2 (3%)



2 - Scenario-based training

■ Before training ■ After training



Training	Mean ± SD	Median
Before training	7.5/10 ± 0.71	7.5
After training	8.5/10 ± 1.05	9.0

→ **Statistically significant increase in scores after training**

WHAT IS NEXT

- ✓ Continuation of training that has had a positive impact on the MERM accreditation process
- ✓ Update of the radiopharmacy laboratory professional practices evaluation grid: criteria for adverse event analysis included
- ✓ Regularly raising awareness among the various stakeholders about reporting adverse events