

## Lecture plan – Equipment Quality Assurance



### Rationale and description of the lectures:

Equipment Quality Assurance (QA) was one of the themes identified as underdeveloped across Europe. This information was obtained as part of the data collected in WP3 (survey to academic staff) and WP4 (interviews with stakeholders).

WP3 showed that Equipment QA was statistically less developed than other competencies of the TR/RTT working on the linear accelerator. WP4 explored this theme further and identified that TRs/RTTs often train and perform basic QA tests in the linear accelerator and have poor knowledge of more advanced QA procedures.

**EQF level:** 6

**ECTS credits:** 0.5 ECTS (Note: the total number of ECTS of the webinar series will be calculated when WPs 3 to 8 are completed)

### Teaching methods:

Online lectures (webinar) – 3h

Self-study – 10h

**Method of assessment:** Online exam (multiple-choice questions)

### Learning outcomes (Knowledge):

At the end of the unit, the student should be able to understand the daily, monthly and annual QA procedures for linear accelerators (as recommended by AAPM TG 142 report<sup>1</sup>).

The student should be able to describe the procedure, aim and tolerances of each QA test.

### Learning outcomes (Skills):

At the end of the unit, the student should be able to perform the following tasks:

- Perform QA tests alone or in collaboration with other professionals (medical physicists)
- Critically evaluate the results of QA tests and take decisions based on these results
- Apply the results of QA tests to predict the impact on patients' treatments

### Learning outcomes (Competencies):

At the end of the unit, the student should be able to be autonomous and take responsibility for:

- Ensuring the that the linear accelerator is safe to practice following the necessary QA tests

<sup>1</sup> <https://aapm.onlinelibrary.wiley.com/doi/epdf/10.1118/1.3190392>

- Perform or request QA tests when suspected that the safety of the equipment may be compromised

**References**

AAPM Task Group 142 report (<https://aapm.onlinelibrary.wiley.com/doi/epdf/10.1118/1.3190392>)

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