**Assessment of the dependence of the field shape on calibration coefficients in Dose Area Product (DAP) for small field sizes.**

**Purpose:** To assess the influence of the field shape on detectors calibrated in terms of Dose Area Product (DAP) for small field sizes.

**Methods:** So far, primary references in radiotherapy are established in a 10x10cm² field in terms of absorbed dose to water at a point, in accordance with the recommendations of international protocols for more than two decades, despite the evolution of treatment modalities. The Laboratoire National Henri Becquerel (LNHB), the French Primary Standards Dosimetry Laboratory, proposed to use an innovative approach to obviate the difficulties of traceability for point measured quantities. Instead of considering a point measurement, an integrated measurement over an area larger than the irradiation field is adopted through another quantity: the Dose Area Product (DAP). To do so, a 30 mm core diameter graphite calorimeter and three plane-parallel ionization chambers of the same sensitive surface were built at LNHB. These chambers were calibrated in a 6 MV FFF field, at the maximum dose rate of 1400 UM/min with specifically designed circular collimators of 5, 7.5, 10, 13 and 15 mm diameter and jaws of 5, 7, 10, 13 and 15 mm side on the Varian TrueBeam accelerator of LNHB.

**Results:** Preliminary results show the same behaviour for the three calibrated chambers with both circular collimators and jaws. All calibration coefficients are compatible with each other at a coverage factor of k=1, considering the same nominal field size.

**Conclusion:** For small fields from 5 mm to 15 mm, calibration coefficients appear to be independent of the beam shape, allowing the primary standards carried out at the LNHB in DAP to be used independently by stereotactic cones or MLC/jaws. These promising results open the door of a paradigm shift in small field dosimetry.