**CRP E33033**

**Short Course Versus Standard Course Radiotherapy, in Elderly and/or Fragile Patients with Glioblastoma Multiforme (GBM)**

**Scientific Secretary:** Elena Fidarova ([e.fidarova@iaea.org](mailto:e.fidarova@iaea.org))

**Summary:**

Brain tumours represent less than 1.5% of all cancer. Glioblastoma multiforme is the most frequent malignant glioma occurring in adults. The treatment of glioblastoma multiforme is an important issue in radiation oncology worldwide, especially in developing countries. By optimizing fractionation in palliative setting of these tumors, it is expected that Member States will benefit from the rational use of the existing equipment and staff levels, decreasing costs, and improving patients’ access to radiotherapy, yet providing effective treatment for such patients. This CRP continues Agency’s research efforts that have improved clinical practice in palliative radiotherapy in other settings.

**Overall Objective:**

A new CRP is to optimize the treatment of elderly and/or frail patients with GBM. They will include patients > 65 years of age and a KPS of 50-100 as well as those < 65 years of age and a KPS of 50-70. This objective will be achieved by comparing survival after more protracted fractionated RT regimen elderly and/or frail patients with GBM to that obtained with shorter fractionated RT regimen.

**Specific Research Objective:**

To study the efficacy of more protracted radiotherapy of 40 Gy in 15 daily fractions compared to a shorter radiotherapy of 25 Gy in 5 daily fractions;

- To compare toxicity between the two regimens investigated;
- To assess differences in quality of life between the two regimens investigated.

**Expected Research Outputs:**

It is expected that the study will demonstrate no difference in survival (non-inferiority trial) between the two treatment regimens in elderly and/or frail patients with glioblastoma multiforme while demonstrating no increase in toxicity for a shorter fractionated regimen (25 Gy in 5 daily fractions) and similar quality of life between the two regimens. It is also expected that the data collected during this study will enable the evaluation of palliative recommendations and feasibility of resource sparing treatments and will potentially influence the patterns of practice in member states regarding the use of radiotherapy in this setting.

**Participating institutions:**

1. **ALGERIA:** Service de Radiothérapie Oncologie, Centre Pierre et Marie Curie, Centre Hospitalier Universitaire Mustapha (CHU), Alger
2. **BRAZIL:** Hospital "A.C. Camargo", Fundacao "Antonio Prudente", Sao Paulo.
3. **EGYPT:** Misr Oncology Center (MOC), Cairo, Nasr City
4. **GREECE:** Radiation Oncology Department, University Hospital of Alexandroupolis Dragana, Alexandroupoli.
5. **POLAND:** Marie Curie-Sklodowska Institute of Oncology, Warsaw.
7. TUNISIA: Institut national de cancer Salah Azaiz, Ministère de la Santé Publique, Tunis, Bab Saadoun