**Health care network for neuro-oncology elderly patients: work-in -progress at Papa Giovanni XIII Hospital, Bergamo**

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## Introduction:

Glioblastoma Multiforme (GBM) is the most frequent primary brain tumour in adult population. In spite of aggressive surgical treatment, chemotherapy and radiotherapy the prognosis remains poor. In developed countries we are facing a progressively increasing number of patients diagnosed with GBM mainly due to ageing population and improved diagnostic tools. Compared to younger adults, elderly patients represent a subgroup with specific clinical, social, cultural and psychological needs, mainly due to the multiple comorbidities, worse performance status and outcome once the diagnosis has been established. Nowadays the after-care relies mainly on the close relatives, but in elderly population this can be problematic due to the higher nursing requirements and specific home-base care needs of patients, which also have to face a number of burocratic and socio-economic issues. At present, if the close relatives cannot face these demands, the likely outcome for these patients is to be hospitalized again.
Although re-hospitalization can warrant them a good quality of nursing care, it does not provide a good quality of life, it increases the costs on the national health system blocking beds that could be used for more acute patients. On the other hand, the national health system has to provide after-care to them. Therefore there is a need for a new multidisciplinary healthcare network to be developed in order to guarantee continuity of care after they are discharged home from the acute neurosurgical unit.

## Goals:

At "Papa Giovanni XIII" in Bergamo we have promoted a new multidisciplinary health care network for neuro-oncology elderly patient, involving neurosurgeons, neuro-oncologist, radiotherapist, general practitioners, palliative care specialists, volunteers, social assistants, nurses) aiming to offer continuity of care and support to patients and relatives.

## Material and methods:

Between Jan 2008 and December 2010 , we have assessed 23 (11 M, 12 F) "vulnerable" neuro-oncology elderly patients admitted at "Papa Giovanni XIII Hospital" . A "vulnerability data sheet" ( Socio-anagraphic data, Karnofski, Barthel, Carlson score) was the questionnaire used to identify cases with special needs .These questionnaires where attached to the discharge summary and sent to the "Protective Discharge Service" (PDS) where a social assistant would contact the general practitioner aiming to maintain continuity of care, to start early medical/nursing home-assistance or to transfer the patients in a rehabilitation unit. Once the level of care needed has been established, the general practitioner will be the coordinator between the "Home-Care Multidisciplinary Assistance Service" (a free, multidisciplinary service addressing vulnerable not-self sufficient patients and providing home medical care, palliative care, nursing-care, rehabilitation) and the "Hospital at Home Service" (free service, mainly addressing terminal patients, organized by the palliative care specialist from "Papa Giovanni Giovanni XIII Hospital").
Besides, information and educational leaflets and DVDs were given to the patients and relatives at the time of discharge.

Patients were assessed for chemiotherapy and radiotherapy by a neuroncology and radiotherapist at 3-6-9 months.

**Results**

**Neuroncolgy elderly patients series.**

Between January 2008 and December 2010, 52 patients (age >65yo, 32 M, 20 F, median age 68 yo) underwent elective resection of glioblastoma at Neurosurgery Department in "Ospedali Riuniti"in Bergamo Papa Giovanni XIII.

In 23 patients (11M, 12 F) we have activated a" Protective Discharge Service" for special after-care needs. Neuroncology patients data of from clinical charts, "vulnerability data sheet ", outpatients charts, PDS register were retrospectively reviewed.

**Discussion:**

In the last years we have felt the need for a better after care system addressing the more vulnerable patients, especially the elderly ones. This is a "work in progress" that has been applied not only to neuroncology patient but also to all "fragile patients" in Bergamo.

Because of multiple co-morbidities, poor performance status a good percentage of elderly patients still needs health care after being discharged from the acute unit; in many cases patients still need further medical, nursing, and rehabilitation care either at home or in other units.

The health care network that we have created will guarantee continuity of care, support in sub-acute and chronic stage of illness, improving the quality of after-care, quality of life and also reducing the workload on relatives and patients and the length of stay in hospital (that is often secondary to social and familiar difficulties and not only to clinical reasons). It will also, reduce family/caregiver stress and responsibility, reduce national health care expenses, increase quality of life.

**Conclusion:**

Currently the SSN is lacking in offering a good after-care service to elderly patients. This network could offer a good answer to the specific needs of neuroncological elderly patients providing a specialist and multidisciplinary after-care.