

ASST OF MANTUA – COGNITIVE DISORDERS AND DEMENTIAS UNIT ORGANIZATION INSIDE DIVISION OF NEUROLOGY– THE ReCAGE STUDY RESULTS

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Abstract: In this paper we present the organization and the usefulness of our Center of Cognitive Disorder and Dementias, located inside Neurological Division of Civil Hospital (“Carlo Poma”) of Mantua.

The usefulness of this Dementia’s Center was recently confirmed by ReCAGE, an European multicenter, controlled, longitudinal study, we performed with other ten European Neurological Division.

Keywords: Treatment of dementia, dementia unit, neuropsychiatric disorders in dementia, treatment of neuropsychiatric disorders of dementia.

1- GENERAL DESCRIPTION

Hospital “Carlo Poma” of Mantua is one of the public organizations managed by “ASST Mantova”, otherwise “Public Social and Health Company” of Mantua.

Inside this Hospital, there is a Neurological Division, containing an organized Memory Clinic called (by Regional Law 990/2016 and Italian Dementia National Plan) C.D.C.D. (Cognitive Disorders and Dementia Unit). The Memory Clinic is dedicated to diagnosis, treatment, management and follow –up of patients affected by different types of Dementias with (or without) Behavioural and Psychological Symptoms of Dementia (BPSD) and their caregivers.

2- ORGANIZATION OF C.D.C.D. [Center of Cognitive Disorders and Dementias]

The Team of C.D.C.D. is composed as shown below:

- Neurologists and Geriatricians (for first evaluations, diagnosis, treatment and follow-up evaluations)
- Neuropsychologists (for Neuropsychological tests)
- Nurses, who mainly establish relationships with patients and caregivers. They manage bookings and the connection between patients and the service hub. Moreover they inform both social workers and service hub to activate specific paths such as cognitive stimulation, psychological support and phone monitoring activities.
- A “Services Center” (in Italian defined “Centro Servizi”), a linkage between Hospital and the District.

3- ACCESS TO C.D.C.D. FOR THE FIRST EVALUATION

Patients can access to C.D.C.D. through either primary care physician or other specialists.

The due payment is calculated on ticket exemption and on annual income.

If there is any limitation regarding the patient’s transport to the hospital, the caregiver can require a medical evaluation at home.

We have a Division, defined “Services Center”, who takes care of the appointments for the patients evaluated for the first time and, then, monitors the situation of the patients at home, as shown below.

4- SUPERVISION OF THE PATIENTS – TREATMENT OF BPSD – ADMISSION TO UNITS OF DAILY ASSISTANCE/SUPPORT

After the first evaluation, the patients are monitored by our Nurses and by “Services Center”, who plan, on the dispositions of the physician, the follow-up evaluations.

“Services Center” also monitors the possible side effects of the treatment proposed by the physician and the BPSD of the patients affected by different types of advanced Dementias, suggesting (to caregiver) to move up the follow-up evaluation, and reporting (to

physician) the questions of caregiver, in order to manage efficaciously the problems emerging at home.

“Services Center” also programs, on the disposition of the physician, the admission of the patients to Unit of daily assistance/support defined (in Italy) “Residenza Socio Assistenziale Aperta (RSA Aperta)”. These Units treat daily, with neuro-cognitive stimulation, patients who, in the evening, go home.

With this organization, at the moment, ASST Mantua can let the patients be diagnosed (as affected by Dementia with, potentially, BPSD), treated, monitored in the time and admitted to different Unit of daily assistant/support to perform neuro-cognitive stimulation.

5- PHARMACOLOGICAL TREATMENT AND MONITORING OF THERAPEUTIC SIDE EFFECTS

The physician, after diagnosis, prescribes therapy on a particular way defined “therapeutic plan”, that lets the patient affected by Dementia not to pay for the therapeutic proposal. This plan is value for a period variable from a month to 12 months, on the disposition of the physician.

After the prescription, the physician also plans the follow-up evaluation, in order to monitor both the positive reactions of the patients (to therapeutic proposal) and the possible side effects (to it). During the follow-up evaluation, the physician analyzes ECG and blood tests and confirms or changes therapy (or therapies) according to these data.

6- THE EXPERIENCE OF A CDCD INSIDE THE NEUROLOGICAL DIVISION OF CIVIL HOSPITAL OF MANTUA – THE ReCAGE STUDY RESULTS.

The importance of a center dedicated to an early diagnosis of Dementia is nowadays recognized, above all for an early treatment to slow down the progression of a particular form of dementia. The paper about this theme are several [1; 2; 3; 4].

Another reason confirming the importance of CDCDs is the possibility to follow up the patients and to treat or, better, to prevent, their Behavioural and psychological symptoms in dementia (BPSDs), also defined Neuropsychiatric Symptoms (NSP). Also in this field we have several papers to consider [5; 6].

A study performed with other ten CDCDs in Europe, “The ReCAGE Study”, confirmed the importance of a division to treat the acute psychotic disorders, defined “Special Care Unit-B” (SCU-B) – [7;8]. In this study, we analyzed data collected at baseline in 398 patients with severe BPSD ($NPI \geq 32$) and defined diagnosis of dementia (Alzheimer's disease [AD] 297; frontotemporal dementia [FTD] 39; Lewy body disease/Parkinsonian dementia [LBD/PD] 31; and vascular dementia [VD] 31) included in the European multicenter cohort RECAGE. Mean total NPI was 52.11 (18.55). LBD/PD patients demonstrated more hallucinations, more anxiety and more delusions than patients with other dementia. FTD patients had less delusions and more disinhibition than patients with other neurodegenerative disorders. These profiles overlapped partially with those reported in the literature in patients with less severe

symptoms. Patients with severe BPSD display different and specific profiles of neuropsychiatric symptoms depending on dementia etiology. Our Object was to evaluate the SCU-B effectiveness toward alleviating BPSD and improving the quality of life (QoL) of patients and their caregivers. To reach this result ReCAGE was a multicenter, controlled, longitudinal study where 508 patients with BPSD were enrolled in two cohorts: 262 patients from centers endowed with a SCU-B, and 246 from centers without SCU-B. The importance of this Special Care Unit was confirmed [8]. Statistical analyses included factorial ANCOVA for comparison among centers. The primary endpoint was effectiveness of the SCU-B, measured through the Neuropsychiatric Inventory (NPI) changes. Secondary endpoints were change in QoL of patients and caregivers, and the tertiary endpoint was time to nursing home admission. As results, the NPI scores decreased in both arms, with a statistically significant difference from baseline to 36 months ($p < 0.0001$) in both cohorts. Over time, NPI decreased more steeply during the first year in the SCU-B arm, but in the following two years the slope was clearly in favor of the control arm. This different pattern of the two cohorts reached statistical significance at the interaction “cohort by time” ($p < 0.0001$). Conflicting results were found regarding the outcomes of quality of life, while there were no differences in time to institutionalization in both cohorts. Our Conclusion was this: The RECAGE study did not confirm the long-term superiority of the pathway comprising a SCU-B, but a post-hoc analysis revealed data supporting their acute effectiveness during behavioral crises.

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