

Manual of quality standard for the improvement of Acute Stroke care pathway in Lombardy

M. Zagaria¹, R. Bertè¹, V. Sangalli¹, V. D. Scigliano¹, S. Ghinzani¹, M. Arnaboldi², G. Bezzi³, G. Bono⁴, G. Frazzitta⁵, G. Grampa⁶, M. Guidotti⁷, P. Perrone⁸, D. Porazzi⁶, A. Salmaggi⁹, M. Salmoiraghi¹⁰, A. Zangrandi¹¹, D. Zarcone¹², A. Zoli¹⁰, E. Agostoni¹.

1. Neurological Department, Ospedale Niguarda Ca' Granda, Milano 2. Neurological Department, Ospedale Sant'Anna, Como 3. Neurological Department, AO della Valtellina e della Valchiavenna, Sondrio 4. Neurological Department, AO Ospedale di Circolo e Fondazione Macchi, Varese 5. Neurorehabilitation Department, Ospedale Classificato Moriggia Pelascini, Gravedona ed Uniti 6. Neurological Department, AO Ospedale di Circolo di Busto Arsizio, Busto Arsizio 7. Neurological Department, Ospedale Valduce, Como 8. Neurological Department, AO Ospedale Civile, Legnano 9. Neurological Department, AO della Provincia di Lecco, Lecco 10. Emergency-Urgency Regional Agency AREU, Regione Lombardia 11. PROGEA Srl, Milano 12. Neurological Department, AO Sant'Antonio Abate, Gallarate

Objectives

Joint Commission International (JCI) provides to the certification of care pathways within a particular clinical environment, by defining performance standard described in a specific manual (Certification for clinical care programs -CPCC). Because of the complex management of acute ischemic stroke, our team created the "Manual of quality standard for the improvement of care pathway"¹ in order to apply the JCI standard on the care pathway of acute ischemic stroke in northern Lombardy Region.

Methods

Certification of care pathways according to Joint Commission International standard methods represents the cornerstone of the Manual, which is based on the following essential points:

- Emergency Medical Service (EMS) assigns Stroke Code at transport and alerts the most suitable clinical center about the arriving of a patient with suspected stroke;
- In-hospital therapeutic pathway have to be set up previously;
- Clinical Pathway times have to be measured and improved if under reference standard;
- Treatment indication have to be shared in accordance with specific protocols;
- Neurologist is the reference physician for the management of stroke;
- Patient transportation from a hospital to another has to be performed according to shared and standardized protocols.

Before and after the writing of the Manual on-site visits were made by JCI in sample hospitals, in order to verify the compliance to the identified standards. So, for the first time JCI provides to a certification of the whole care pathway of ischemic stroke, including pre-hospital phase.

Results

We identified significant indicators of performance for the three separate areas (EMS, ED, SU):

- Indicator of clinical assistance (process index)
- Indicator of the quality of care received by the patient or by family (customer care questionnaire)
- Indicators of the health of the patient (outcome index)

In particular, process indexes deal with time of clinical pathway, assignation of emergency codes and therapeutic procedures; outcome indexes concern with patients' mortality and disability.

Conclusion

The manual written by JCI allows to verify the reproducibility of the system in other hospitals, according to the application of the standards listed above. Because of the effectiveness of the organizational system approved by JCI it is necessary to diffuse the 'Manual of quality standard for the improvement of care pathway' to other clinical centers in addition to those involved in the Manual realization.

Reference

1. The care pathway of Acute stroke in Lombardy: Manual of quality standard for the improvement of care pathway. E. Agostoni, R. Banfi, M.V. Calloni, N. Checcarelli, D. Coen, L. D'Angelo, M. Delodovici, B. Di Rosa, F. Favalli, G. Grampa, L. Lodetti, F. Mazzucchelli, M. Migliori, A. Salmaggi, S. Vidale 2014.