Stroke management—The first 6 hours

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Emergency brain resuscitation in acute stroke and the initial clinical and neuroradiological evaluation should take place in an emergency room setting.

Management includes the identification of the underlying cause of stroke, the etiology of ischemic stroke and the initiation of general and specific treatment strategies. Although only a minority of patients currently qualifies for thrombolytic therapy, all steps should be done in a fast and concise way in order not to lose any time, in case thrombolytic therapy would be an option. The so called "door to needle time" refers to the time needed for the evaluation and the decision making. Ancillary tests such as CT, stroke MRI, ultrasound, ECG and the blood tests also have to be implemented early.

Initial measures, including clinical examination, information about patient history and the organization of further diagnostic procedures and consecutive specific treatment should rather be simultaneously than in sequence. The selection of special treatment strategies may already be ongoing before the final decision for treatment of the subtype of stroke has been made. Speed and rapid decision making are essential elements. Only a minority of patients are in a life-threatening condition after acute stroke. Nevertheless, frequently underlying conditions such as cardiac disease, hypo- or hypertension, renal disease, diabetes, electrolyte imbalance, dehydration and infection need to be identified and treated according to their severity.

In this presentation I will give an example on how early treatment of acute ischemic stroke in a specialized stroke system may take place.