

European Stroke Organisation (ESO) guidelines on blood pressure management in acute ischaemic stroke and intracerebral haemorrhage

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Abstract

The optimal blood pressure (BP) management in acute ischaemic stroke (AIS) and acute intracerebral haemorrhage (ICH) remains controversial. These European Stroke Organisation (ESO) guidelines provide evidence-based recommendations to assist physicians in their clinical decisions regarding BP management in acute stroke. The guidelines were developed according to the ESO standard operating procedure and Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) methodology. The working group identified relevant clinical questions, performed systematic reviews and meta-analyses of the literature, assessed the quality of the available evidence, and made specific recommendations. Expert consensus statements were provided where insufficient evidence was available to provide recommendations based on the GRADE approach. Despite several large randomised-controlled clinical trials, quality of evidence is generally low due to inconsistent results of the effect of blood pressure lowering in AIS. We recommend early and modest blood pressure control (avoiding blood pressure levels >180/105 mm Hg) in AIS patients undergoing reperfusion therapies. There is more high-quality randomised evidence for BP lowering in acute ICH, where intensive blood pressure lowering is recommended rapidly after hospital presentation with the intent to improve recovery by reducing haematoma expansion. These guidelines provide further recommendations on blood pressure thresholds and for specific patient subgroups. There is ongoing uncertainty regarding the most appropriate blood pressure management in AIS and ICH. Future randomised-controlled clinical trials are needed to inform decision making on thresholds, timing and strategy of blood pressure lowering in different acute stroke patient subgroups.

Keywords

ischaemic stroke, intracerebral haemorrhage, blood pressure, hypertension, guidelines, recommendations, antihypertensive, blood pressure lowering

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