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Management of hyperpyrexia, hyperglycaemia, and hypertension in acute ischaemic stroke

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disclosures

- Speaker's fees and consultancy for Bayer and Boehringer Ingelheim
- (co-)Chief investigator PRECIOUS and MR ASAP

learning objectives

- obtain insight in the frequency, causes, and treatment options of frequent medical complications after ischaemic stroke
- obtain knowledge of the evidence underlying suggested or recommended treatment options
- be able to implement recommendations in guidelines in routine clinical practice

medical complications in first days after stroke

- infection 30%
- temperature $> 37,5^{\circ}\text{C}$ 33 – 50%
- hyperglycaemia 30 – 40%
- hypertension 75%

some complications more frequent with

- higher age
- more severe deficit

all associated with poor outcome

American guidelines recommend

- antibiotics for infections
- antipyretic drugs for subfebrile temperatures or fever
- treatment of hyperglycaemia
- treatment of severe hypertension before i.v. thrombolysis



too late?



prevention better?

ESO guidelines

- no recommendation possible for treating hyperthermia as a means to improve functional outcome and/or survival
- routine prevention of hyperthermia not recommended
- new randomised trials warranted

conclusions & recommendations

- in patients with fever, the presence of an infection should be assessed and infections should be treated;
- there is no evidence yet that the **prevention** of dysphagia, infections, or fever or treatment of hyperglycaemia or hypertension improve functional outcome;
- the RCT **PRECIOUS** assesses whether the prevention of complications improves outcome;
- early antihypertensive treatment is tested in RCTs

literature

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