Fig. Maximum pain score during the first 14 days of hospitalization. Median, interquartiles and extreme values are shown

[Maximum pain score during 14 days of admission]

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CEREBRAL HAEMODYNAMICS AND CARBON DIOXIDE REACTIVITY AT CHILDREN DURING SEVERE NOSOCOMIAL PNEUMONIA

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Background: Most patients with severe nosocomial pneumonia (SNP) develop potentially irreversible cerebral dysfunctions. We hypothesized that cerebral haemodynamics and carbon dioxide reactivity would be impaired in children with severe nosocomial pneumonia and pathological electroencephalogram patterns.

Methods: After approval of the institutional ethics committee, 18 mechanically ventilated patients with severe nosocomial pneumonia and pathological electroencephalogram patterns underwent measurements of cerebral blood flow and jugular venous oxygen saturation before and after reduction of the arterial carbon dioxide partial pressure by 0.84 ± 0.72 kPa by perventilation. The cerebral capillary closing pressure was determined from transcranial Doppler measurements of the arterial blood flow of the middle cerebral artery and the arterial pressure curve. A *t* test for matched pairs was used for statistical analysis ($P < 0.05$).

Results: During stable mean arterial pressure and cardiac index, reduction of the arterial carbon dioxide partial pressure led to a significant increase of the capillary closing pressure from 24.2 ± 10.2 mmHg to 37.1 ± 13.2 mmHg ($P < 0.001$), with a consecutive decrease of blood flow velocity in the middle cerebral artery of $23.3 \pm 2.2\%/kPa$ ($P < 0.001$), of cerebral blood flow from 60.2 ± 29.1 ml/100 g/min to 38.1 ± 16.2 ml/100 g/min ($P < 0.001$) and of jugular venous oxygen saturation from $74.2 \pm 8.2\%$ to $64.1 \pm 10.0\%$ ($P < 0.01$).

Conclusion: In contrast to other experimental and clinical data, we observed no pathological.

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STETHOSOPES: POTENTIAL RESERVOIRS FOR THE SPREAD OF NOSOCOMIAL INFECTIONS

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Background: Infants in neonatal intensive care units (NICUs) are at increased risk of nosocomial infection (NI).

Aims: To determine stethoscope *Staphylococcus* (S.) contamination rates & anti-sepsis practices.

Methods: Stethoscopes of 12 medical students, 12 NICU physicians and at 12 incubator/cotsides were cultured for S. species (viruses, fungi and other bacteria not assessed). Positive cultures were reported as light, moderate or heavy growth. Students and physicians were surveyed regarding frequency of stethoscope anti-sepsis and charts were reviewed for evidence of NIs.

Results: Overall, 22/36 stethoscopes grew S. species. No meticillin resistant *S. Aureus* was isolated and 11/22 had a light growth of coagulase negative *Staphylococci* (CONS). There was a moderate/heavy growth CONS from; 3/12 student, 4/12 physician, 2/12 NICU stethoscopes. *S. Aureus* was isolated from 1 student stethoscope (heavy growth), 1 physician stethoscope (moderate