

**Blood pressure measurements in infants; who does what? A Nordic survey.**

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**Introduction:**

Despite frequent use of non-invasive blood pressure (NIBP) measurements in infants, generally accepted measurement guidelines are lacking. The primary aim of the present study was to determine the use of standardised procedures for infant NIBP measurements in the Nordic countries. Secondly we aimed to identify factors included in the standardisation and interpretation of NIBP measurements in infants.

**Methods:**

A cross-sectional electronic questionnaire survey was completed by physicians in all university hospitals in Sweden, Norway, Denmark, Finland and Iceland, targeted through national coordinators. The survey contained four parts: 1) respondent characteristics, 2) presence and description of standardized procedures for BP measurements, 3) actual daily practice of BP measurements, and 4) the respondent's methodological considerations and interpretation of BP measurements in a healthy 6-month-old baby.

**Results**

The overall response rate of 55/84 physicians (91 % paediatricians) included all Nordic university hospitals in the sub-fields of cardiology (n=22), general paediatrics (n=16), nephrology (n=14) and other fields (n=3), but lacked responses from the 18 physicians working within intensive care units. Age-specific NIBP procedures for infants were available in 13 units (23.6 %) only. The respondents referred to 19 different sources of information. Factors most commonly assessed for interpretation were age (100 %), arousal state (78.2 %) and cuff size (76.4 %). Interpretation of the highest- and lowest assumed normal systolic and diastolic BP overlapped substantially.

**Conclusion**

We conclude that the majority of university hospital units treating children lack age-specific written procedures for measuring and interpreting infant BP. There is a strong need for common guidelines and updated reference values.