26225 - THE NEW LABOR PAIN SCALE (LPS):DESCRIPTION & PROPERTIES

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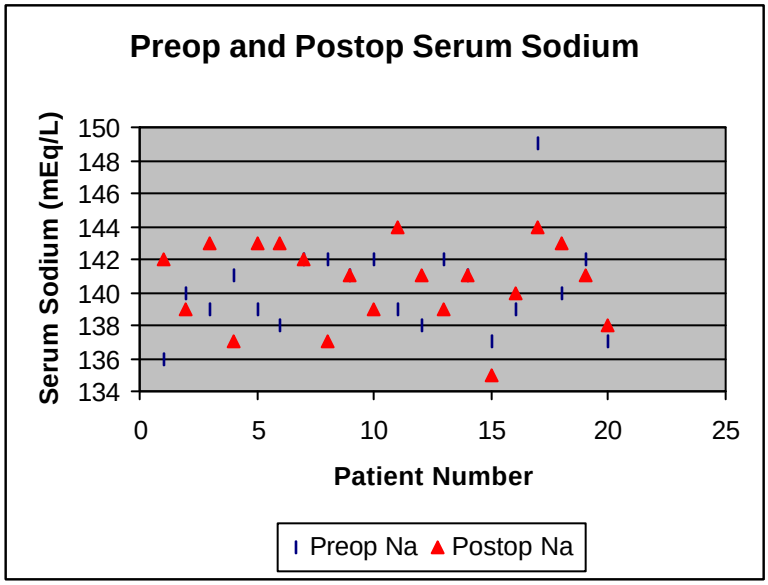
INTRODUCTION: Labor pain measurement is limited by lack of an instrument developed specifically for this purpose. We describe the initial determination of the psychometric properties of the Labor Pain Scale(LPS), a new 26item self-report scale developed and tested in over 400parturients.
METHODS: After REB approval, a purposeful sample of native English-speaking parturients of mixed parity, ethnicity, socio-economic status and delivery mode was recruited from 3urban hospitals with a combined delivery rate of >10,000/yr.Parturients with and without neuraxial analgesia(NA)were included.Patients completed a 98item questionnaire comprised of previously generated labor/childbirth descriptors(1) scaled from 0-10(0=no pain,10=worst possible pain) <26hrs of delivery.Unclear, confusing or non-relevant descriptors were rated zero. Sample size requirement(n=365) was calculated based on a survey of labor analgesia experts responding to the same questionnaire. Items with <20% endorsement were discarded unless approximating 20% and indicated for inclusion based on clinical grounds. Principal Components, Factor Analysis and Cronbach's alpha were performed on responses to the remaining 26descriptors. One-way ANOVA was used to examine differences between Factor Scores for important demographic variables as tests of Construct Validity.
RESULTS: 433 parturients participated(n=365 with NA;n=68 without NA).A greater proportion of multiparous women were in the non-epidural group and a greater number of c/sections were performed in the primiparous group with epidurals. Overall Kaiser's measures of sampling adequacy were very good(0.913). Factor Analysis suggested 4 to 5 theoretically meaningful factors required for labor pain measurement.These were:Factor 1-"Degree of difficulty in Coping/Maintaining self control during pain"; Factor 2-"Delivery Pain"; Factor 3-"Uterine Contraction Pain"; Factor 4-"Back pain"; and Factor 5-"Fear and Anxiety". Markers for pain (uterine contraction, back, rectal and vaginal), imbedded as descriptors in the questionnaire, loaded onto relevant factors, increasing their interpretability. Cronbach's alpha for the 26item scale was 0.915(excellent internal consistency). Initial one-way ANOVAs between important demographic variables and Factor Scores suggested good construct validity. These results showed: a greater degree of difficulty in coping/maintaining self control due to pain intensity(Factor l) in women without epidurals($p=0.049$)and in primiparous patients($p<0.0001$); increased birth pain(Factor 2) in women without epidurals($p<0.0001$) and in women having spontaneous vaginal deliveries compared with c/sections($p<0.0003$); increased back pain(Factor 4) in primiparous women($p<0.0001$); and increased fear/anxiety(Factor 5) in primiparous women($p<0.0001$).
DISCUSSION: Initial examination of the New Labor Pain Scale suggests that it holds high promise as a future Obstetric Anesthesia Research tool.
REFERENCES:
1. Can J Anes,51:A63(2004).


Preop and Postop Serum Sodium
Serum Sodium (mEq/L)
150
148
146
144
142
140
138
136
134
0
5
10
15
20
25
Patient Number
Preop Na
Postop Na