

Text4Peds: Short Message Service Evaluating Medical Student Education

Study Protocol

Initial IRB Document Approval Date: 12/8/15

## Text4Peds Study Protocol:

The study is a randomized, controlled study examining the effects of daily informational text messages on NBME Pediatric Subject Evaluation scores.

At orientation for the pediatric clerkship, the research team will introduce the research study and provide written information concerning the study. There are 180, third year medical students who rotate through pediatrics annually. The students are divided evenly into 6 pediatric blocks throughout the year.

Subjects (students) consented to the study, will all receive access to a Google site containing pediatric review journal articles. These articles address standard pediatric topics. The information and answers to the questions posed in the text messages, will be taken from these articles (i.e. all participants will have access to the information).

At enrollment subjects will be given a written survey to collect baseline demographic data (e.g. age, sex, anticipated specialty choice, completed rotations, conscientiousness, etc.).

Subjects will be randomized to either receive a daily question-and-answer (Q&A) text or no text at all. The text messages will be sent 6 days per week for the 7 weeks while the subjects are on the rotation. The content of the text messages will represent common topics in general pediatrics. Each text message will provide a question in 140 characters or less as limited by the texting format.

The messages will contain a link to a SLU Qualtrics site asking the same question with more clinical context. If the students want instant feedback, they can follow the link. For example, the text would show- "2 week male presents with projectile vomiting. Diagnosis?" vs qualtrics showing- "a 2 week old first born male presents with progressive nonbilious projectile vomiting and progressive lethargy. What is the most likely diagnosis?" On answering the question, the next page will have the correct response along with an explanation of the answer with a link to the primary source of the information (the same articles given to the students at the beginning of the study).

The responses from the Qualtrics site will be collected; however this is not a primary endpoint and will only be analyzed in aggregate. Subjects' responses have no bearing on their academic performance during the rotation. A subsequent text message will be sent later that day with the answer to the question (this way the subjects who chose not to access the Qualtrics site will still receive the answer).

See attachments for an example of the text messages along with the answers and articles.

At the end of the block, all medical students (subjects) will take the NBME Pediatric Subject Evaluation. The NBME Pediatric Subject Evaluation is a component of the pediatric clerkship and is required independent of this study (i.e. all will take the test even if they do not participate in the study). A follow up survey will be sent to the students as an evaluation of the Text4Peds program (preferences to the format of the texting program, content of the messages and any recommended changes). The follow up survey will either be a paper copy or an electronic survey through Qualtrics (with students given a choice for easy of completion).

NBME Pediatric Subject Evaluation exam scores will be obtained and matched to subjects. Each participant will be assigned a study ID number to maintain anonymity. Subjects' identity will be protected as the exam scores will only be linked to participants through a master list (available only to study PI and faculty mentor). Data analysis will be performed based on the primary outcome of the NBME Pediatric Subject Evaluation score.

Study Population:

-Third year medical students in the pediatric clerkship at Saint Louis University School of Medicine

-Expected age range 20yrs – 50years old

-Total number of participants: 162

Inclusion criteria:

-On the third year pediatric clerkship at Saint Louis University School of Medicine

Exclusion Criteria:

- Does not have a mobile phone capable of receiving a short message service (SMS) text message