July 2015

Dear VIP/QuIIN Members,

We are pleased to invite you to participate in an innovative project that we believe will have a significant impact on children's health care. The project, "Stewardship in Improving Bronchiolitis" or SIB for short, will provide physicians and hospitals with strategies, tools, and resources necessary to assess and improve the quality of care delivered to pediatric patients admitted with bronchiolitis ***across the continuum of care***. Hospital teams will implement tools, strategies and measures designed to improve care by increasing compliance with the AAP's clinical practice guideline on bronchiolitis. Tools and interventions will be tailored to the needs of the participating hospitals. This project is supported and managed by the Value in Inpatient Pediatrics (VIP) Network, part of the Quality Improvement Innovation Networks (QuIIN) at the American Academy of Pediatrics (AAP).

We are looking for thirty pediatric hospital teams to participate in this project. The core improvement teams will be co-led by an inpatient physician and emergency department physician and will include at least 2 additional team members, such as a Respiratory Therapist and a nurse/nurse floor manager. This highly collaborative team addresses improved bronchiolitis management across the continuum of care with project measures that *apply* to the both the inpatient and EM settings at your hospital. Participants should have a willingness and commitment to work with their teams to improve care and an interest in sharing information learned with other hospital staff not on the core team, as well as with other project participants.

We are looking for hospital settings that manage at least fifty inpatient and/or emergency department cases of bronchiolitis per year (inpatient or observational status with the primary diagnosis of bronchiolitis as defined by ICD-9 codes 466.11 and 466.19) in the 1 month to 23 months of age patient population. Some patients will be excluded from the chart review for this project, including those who are in the intensive care unit or have significant complicated illnesses.

During this 12 month project, teams will be asked to adopt a systematic approach for providing bronchiolitis interventions and related care through the use of improvement science methods, including measurement. Data collection will involve a pre- and post-survey for the lead physician, patient chart review, periodic progress reports and monthly calls with expert coaches. No travel will be required for this project. Teams will take part in up to eight educational webinars and participate in regular "touch base" calls to work together with expert coaches and other participants on addressing challenges and sharing successful strategies.

We believe there will be many benefits for participants involved in this nationally recognized project. Participants will have the opportunity to:

- Test strategies for improving bronchiolitis care across the continuum of care (inpatient, emergency medicine and strengthen links to the ambulatory setting) with patients aged 1 month to 23 months of age
- Work with colleagues from around the country in a quality improvement learning collaborative
- Learn from national experts, including coaching from hospitalists with content expertise throughout a 9 month action period (of the 12 month project with pre and post work), and receive ongoing support for improvement
- Receive American Board of Pediatrics or American Board of Emergency Physicians Part 4 Maintenance of Certification credit (if approved)

Attached please find a more detailed description of expectations for project participants. In addition, we will be conducting an informational call on the date noted below. The webinar will be recorded and available for viewing following the live event.

July 29, 2015 at 1PM ET/12 PM CT/11 AM MT/10 AM PT
Register at: https://attendee.gotowebinar.com/register/6381170031292098305

To express interest in project participation, please complete the project application fund here: https://www.surveymonkey.com/r/SIB_Recruitment_Application (PDF attached). Preference will be given to hospitals with completed surveys received by August 14, 2015. Project staff will notify hospital lead physicians about their project participation status and next steps by early September.

If you have any questions please contact Faiza Wasif, MPH at fwasif@aap.org.

Thank you for your interest in this exciting project!

Sincerely,
Michele Lossius, MD, FAAP, Expert Group Co-Chairperson
Grant Mussman, MD, FAAP, Expert Group Co-Chairperson

A QUALITATIVE COLLABORATIVE FOR IMPROVING COMPLIANCE WITH THE AAP BRONCHIOLITIS ACROSS THE CONTINUUM OF CARE GUIDELINE (SIB)

FACT SHEET

Over the past decade, acute viral bronchiolitis has been the first or second most common illness resulting in the hospitalization of young children in the US, as well as one of the most expensive in that age group.[1,2] The available research has failed to establish any therapy as providing a truly significant impact on outcomes in the disease and there are now multiple meta-analyses detailing the lack of utility of most therapies and testing.[3-7] Variation and overuse remain common in bronchiolitis despite the publication of an AAP practice guideline in 2014.[8-10]

In response to the available evidence, several academic medical centers have published their experience with clinical practice guidelines.[11-21] The published quality improvement projects had the intent to standardize the approach to bronchiolitis and to decrease overuse of non-evidence-based care. Guideline details differ from center to center, but in general they include evidence-based statements discouraging commonly trialed medications and/or testing, and often standardize a respiratory distress score in order to objectively measure patient response to interventions. Almost all published guidelines have demonstrated some level of "success" in reducing non-evidence-based interventions in bronchiolitis; however, few attempts to disseminate quality improvement strategies for bronchiolitis outside of academic medical centers have been described.[22]

In 2013 the Value in Inpatient Pediatrics (VIP) Network, part of the Quality Improvement Innovation Networks (QuIIN), mobilized a cohort of pediatric hospitalists to utilize quality improvement science to develop, implement, and evaluate strategies to improve compliance with the AAP clinical practice guideline on bronchiolitis. This project was funded and managed through the AAP QuIIN. In light of the success of the project and the positive feedback, we endeavor to operationalize another quality improvement collaborative targeted at improved care for the management of bronchiolitis across the continuum of care.

Thirty physician-led teams will be included in the community of learners and will collaborate over 12 months to make improvements in practice. The aims noted below are considered goals for individual hospital site teams, as well as for the overall aggregate of the quality improvement collaborative (all involved hospital sites). The decreases and increases noted below will be judged against the baseline rates gathered at the beginning of the project (retained from bronchiolitis chart review for December 2015 and January, February and March 2016). The specific aim of the project is:

Using evidence to improve the management of infants with bronchiolitis across the patient care continuum, specifically including the following aims:

Utilization Measures

- Decrease the overall usage of bronchodilators for eligible patients with bronchiolitis by 50% (**Inpatient and ED settings**)
- Decrease the bronchodilator doses per patient for the management of bronchiolitis by 50% (**Inpatient and ED settings**)
- Decrease the overall usage of systemic corticosteroids for eligible patients with bronchiolitis by 50% (**Inpatient and ED settings**)
- Decrease overall usage of viral testing for eligible ED patients with bronchiolitis by 50% (**ED setting**)
- Decrease overall usage of chest radiography for eligible ED patients with bronchiolitis by 50% (**ED setting**)
- Decrease overall usage of any dose of oral or IV antibiotics for eligible ED patients with bronchiolitis by 50% (**ED setting**)

Process Measures

- Achieve 50% documented uptake of the use of a respiratory score for eligible patients with bronchiolitis (**Inpatient and ED settings**)
- Achieve 50% documented uptake of the use of a respiratory score used as a threshold for treatment (**Inpatient and ED settings**)
- Achieve 90% compliance with screening for second hand smoke exposure with eligible patients with bronchiolitis (**Inpatient setting**)

- Achieve 50% increase in the documentation of each individual intervention: 1. Recommendation for smoking cessation, 2. Recommendation to quit smoking/counseling provided, and 3. Recommendation to discuss NRT with PMD. (**Inpatient setting**)
- Achieve 90% documentation of charts with patient education and information in line with the AAP CPG on Bronchiolitis in the Inpatient and ED after visit summary (**ED and Inpatient setting**)
- Decrease in average length of time between ED arrival to decision (defined as discharge, admin, etc.) – Throughput (**ED setting**)

While the goals for the project are based on individual chart review, it is the hope that systems (ie, respiratory score implementation) will be put into place to positively impact all pediatric patients admitted with bronchiolitis.

Participating Hospitals

As mentioned above, each participating hospital will have a core improvement team, consisting of physician co-leaders (a hospitalist and emergency room physician) and at least 2 other members that are recommended to be a nurse, other clinical staff and/or a Respiratory Therapist. All other clinicians in the hospital are encouraged to participate in the project at the local level, but will not have the same responsibilities as the core improvement team. These other clinicians will be involved in the use and testing of the tools, as well as providing patient charts for review by the core improvement team.

Participating individuals (as part of the core improvement team) will work over the course of the 9 month action period (part of the overall 12 month project with pre and post work) to implement and test strategies in pediatric bronchiolitis care. To participate in this project, core improvement team members will need to attend at minimum an orientation conference call, four 60-minute educational webinars and participate in monthly conference calls with assigned expert coaches. Team members will need to complete a pre- and post-survey and complete an electronic monthly chart review form and periodic online narrative progress report.

The orientation call will outline the expectations and next steps of the project, as well as outline the timeframe and framework of the project tasks. Educational webinars will address quality improvement (QI) basics and how to use the Model of Improvement in the hospital setting for implementing process changes; include a review of the evidence for best practices in bronchiolitis care; and an introduction, overview and discussion of the tools included in the change package or resource guide. Following the conclusion of the data collection period, hospital team members will participate in a fourth educational webinar regarding keeping the quality improvement gains and exchanging ideas on the next steps for bronchiolitis intervention quality improvement for the hospital . The sequence of project events for involvement is in the chart below as well as expectations of participants.

Timeline for Participating Hospitals and Team Members

Application Process:	**Pre-work:**	**Action Period:**	**Wrap-up & Data Analysis (August – September 2016)**
• Form core improvement team and determine roles of each member • Attend informational webinar(optional) • Complete project application by August 14, 2015.	• Participate in orientation call • Sign Consent Form • Complete Pre-survey • Gain hospital leadership buy-in to project participation • Participate in 1-2 webinars (QI Basics and Bronchiolitis evidence) • Local IRB approval (if necessary)	• Participate in up to 6 webinars • Touch base monthly with assigned expert coach • Collect monthly data (20 chart review and monthly progress report) for six months of retrospective outcome data. • Plan, test and finalize respiratory score to use during the project. • Test changes using PDSA cycles • Provide feedback on tools	
July - August 2015	**September 2015**	**October 2015 – May 2016**	

Hospital Site Selection

All applications received will be reviewed by the project leaders and may engage members of the Expert Group, which is comprised of pediatricians with training and experience in pediatric hospital medicine, intensive care, and emergency medicine. Members of the expert group all have experience guiding previous pediatric quality improvement projects and advanced training in quality improvement methodology. Thirty pediatric hospital teams will be selected, representing a diversity of geographical locations, hospital settings (urban, rural, suburban), hospital size, and hospital type. An emphasis will be placed on recruiting hospitals that traditionally do not have access to quality improvement resources and technical assistance.

The project team must be co-led by an inpatient and emergency room physician. Applicants are expected to have identified a team and documented in the application the commitment of the senior leadership to support this project.

If selected, all core improvement team members will be asked to sign a consent form and the physician leaders will be asked to join the Quality Improvement Innovation Networks (QuIIN), a program of the American Academy of Pediatrics. Joining QuIIN is free and easy and requires completion of a simple membership application available at http://quiin.aap.org.

Benefits of Participation

Participation in this nationally recognized project would provide many benefits to involved teams:

- Test strategies for improving bronchiolitis care with patients aged 1 month to 23 months
- Work with colleagues from around the country in a quality improvement learning collaborative
- Learn from national experts, including coaching from hospitalists with content expertise throughout a 9 month action period, and receive ongoing support for improvement
- Receive American Board of Pediatrics or American Board of Emergency Medicine Part 4 Maintenance of Certification credit (if approved)

Specific Expectations

As part of the QI project, it is important for a hospitalist to identify a core improvement team to lead the improvement efforts in the hospital. These team members are considered QI project participants as they are the individuals who will communicate with the Expert Group on a regular basis, are responsible for the data collection/entry, and will participate in education webinars with other hospital core improvement teams. They also relay information back to others in the hospital so that improvements to the system can be made. These team members will be consented to participate in the QI project and complete the duties outlined below.

Each participant on the core improvement team will:

- *Physician leader only: serve as Local Leader in the attestation process required by the American Board of Pediatrics (ABP) for Part 4 Maintenance of Certification or American Board of Emergency Medicine Includes providing each hospitalist and/or EM physician, respectively, interested in participating for MOC credit a document describing the requirements of their participation, monitoring physician participation, and attesting that they met the project's completion criteria.*
- Devote necessary resources and time to testing and implementing changes over the specified intervention period, while collecting data from 40 patient charts per month for 4 months from each setting (20 inpatient and 20 emergency department therefore 40 total), and working to obtain buy-in from all members in their hospital.
- Seek necessary institutional approval for participation in the project prior to any data collection.
- Complete pre-work activities (over one month's time) including:
    - Complete pre-survey (via SurveyMonkey)
    - Participate in an orientation conference call, as well as a call regarding chart data entry into the online Quality Improvement Data Aggregator (QIDA) for "Group Administrators."
    - Participating in at least one learning session/webinar on QI methods or on bronchiolitis background and evidence-based management depending on gaps in personal knowledge base.
- Learn the Model for Improvement and implement Plan, Do, Study, Act (PDSA) cycles.
- Make appropriate changes in the structure of how inpatient bronchiolitis care is delivered to patients.
- Regularly collect and submit clinical measurements pertinent to the aims of the project.
    - 1-2 core team members (there may be one from inpatient and one from EM) identified as a Group Administrator will enter chart review data into QIDA retrospectively from December 2014 through March 2015
- Each month for 8 months (4 months baseline and 4 months post intervention), review charts of 40 patients (20 inpatient and 20 emergency department totaling 40)or 100% of eligible patients that month if fewer than 40 eligible patients 1 month to 23 months of age hospitalized for bronchiolitis and collect data on project measures. Chart review will be completed using the AAP Quality Improvement Data Aggregator (QIDA).
- Complete narrative progress reports via SurveyMonkey.
- Test innovations in care delivery to improve care of children with bronchiolitis.
- Share lessons learned and problem-solve with other participating hospitals through monthly conference calls and an e-mail listserv.
- Use e-mail and the Internet on a regular basis for ongoing support, information, and communication among hospital site teams.
- Participate in learning session/webinar learning sessions during the action period
- Complete a post-survey at the end of the project and a debriefing project summary call.

All physicians in the hospital are encouraged to participate in this project by using the tools and strategies identified and providing charts for review. Physicians who would like to claim credit (including those not identified on the core improvement team), must meet the criteria established by the AAP and the minimum standards set by the ABP for all QI projects outlined below.

AAP-Established Minimum Criteria for Participation

The project requires physician participation for 9 months. Physicians must:

- Lead the implementation for the SIB Quality Improvement project core changes for 9 months
- ***Physician Leader:*** Attend 4 meetings that can be learning session webinars or conference calls/webinars where collaborative data are reviewed or plans for new improvement activities are made.
  Other participating physicians: Attend at least 4 meetings at which collaborative data are reviewed and plans for improvement activities are made (can be local team meetings, conference calls/webinars, or learning sessions)
- Collect data on a subset of patients as defined by the project
- Review monthly feedback reports (run charts)

ABP Minimum Standards for Participation for All QI Projects

- Provide direct or consultative patient care in the improvement project
- Complete 1 or more tests of change to improve care
- Collect, submit and review data in keeping with the project's measurement plan
- Collaborate actively by attending at least 4 project meetings
- Maintain active in the project for the minimum duration required by the project (minimum criteria established by AAP)
- Complete participation under current ABP certificate or MOC cycle

Data Sharing and Reporting

As part of the quality improvement project, participants will share data with project participants and leadership. This will allow hospitals to learn from one another and share strategies and barriers. QuIIN Expert Group members (consisting of AAP staff and up to 15 expert leaders) will have access to the identifiable (by hospital) data from the chart reviews, pre- and post-surveys and the monthly progress reports, allowing them to identify areas of need and provide ongoing assistance throughout the project. Finally, hospital team members may choose to share data with other hospital staff (that are not consented) during calls if they feel it will be beneficial (although this is not required).

For quality improvement purposes between hospitals, run chart data will be aggregated by hospital. In addition, hospitals will be identified by code in communication for quality improvement purposes between each participating hospital. Each participating team will be able to use the secure password protected QIDA system to view reports of their hospital's aggregate data, as well as aggregate data from other hospitals. Data collected will not include protected health information. Data will be stored on a secure network with password protection. Project data will be stored for up to sever years in the QIDA system, but once a project closes, only AAP QIDA staff will have access to the data.

For research and publications that may result from this work, individual hospital data or anecdotal stories will not be identifiable. If hospital data is presented, each hospital will receive an ID code in the report. Should hospitals be easily identifiable by their demographics (ie, only one rural hospital or only one academic/university affiliated hospital with pediatric beds), data based on those demographics will not be presented in the publications or with the public. For instance, there will need to be three or more hospitals in any demographic group to report project data from that group in a publication or in any way to the public. Potential publications may include a conceptual model of key barriers and potentially useful strategies that emerged from this project. No patients or hospital staff will be identified in any report or publication about this study. Hospital names will only be used in the acknowledgement section of any potential publication.

Institutional Review Board (IRB)

SIB has received approval from the AAP Institutional Review Board. No identifiable protected health information is being collected for this project; therefore, HIPAA authorization will not be needed from patients in order for your hospital to participate. Note: your hospital or healthcare system may also require IRB approval. Often, the information supplied in the AAP IRB Application will be applicable to your own hospital IRB application as well and may be sufficient. If not, the AAP IRB application will be provided so that it can be adapted to meet your needs; a copy of the AAP IRB will be made available upon your request.

Application Checklist

- ❑ Please review the following documents:
  - Fact Sheet and Timeline
  - Electronic Application https://www.surveymonkey.com/r/SIB_Recruitment_Application
- ❑ After reviewing the above materials, please submit the electronic application (August 14, 2015 for full consideration)
- ❑ If you are interested in obtaining a letter of support from the SIB leadership that can be shared with the leadership at your organization, please contact Faiza Wasif (fwasif@aap.org), with this request.
- ❑ Upon our receipt of your application materials, the application will be reviewed. Once project teams have been selected, we will contact you to welcome your team to the project in early September.
- ❑ Please do not hesitate to contact Faiza Wasif, MPH QuIIN: fwasif@aap.org or 847/434-7806

We look forward to working with you!