



WakeUp Safe

The Pediatric Anesthesia Quality Improvement Initiative

Semiannual Newsletter *January 2023*

President's message



Anna Varughese, MD

Dear WUS members,

A Happy 2023 to each one of you! Thank you for your continued participation and commitment to safety and quality for our pediatric patients.

Last fall, a few distinguished WakeUpSafe Executive Committee members' terms came to an end, and new leaders joined the team. I am honored to be your incoming President and I want to acknowledge the committed, selfless and supportive leadership provided by David Buck over the last few years. **Jay Deshpande** assumed the position of Executive Director and we are the beneficiaries of his extensive leadership in pediatric anesthesia and quality and safety and his extraordinary commitment to improving the lives of children. I want to extend a special THANK YOU to his predecessor, **Don Tyler** for his unwavering leadership, vision, support, and outstanding guidance over the years.

We welcome **Bob Brustowicz** to the team as President-Elect and we look forward to tapping into his expertise and experience. A sincere thank you to Dan Roke, Past-President, for his many years of dedicated service to WUS.

In this issue...

- ❖ **New officers**
President Anna Varughese
President-elect Bob Brustowicz
- ❖ **New Database**
- ❖ **Founding executive director Don Tyler retires**
- ❖ **WakeUpSafe QI workshop at ACS Quality & Safety Conference 2022**
- ❖ **Annual Meeting highlights from New Orleans**
- ❖ **Committee Reports**

A big SHOUT OUT and many thanks to the members and Chairs of the various WUS committees for their service: Education Committee (**Neha Patel**), Improvement Committee (**Imelda Tjia**), Research Committee (**Manon Hache**), Data Governance Committee (**David Buck**) and WakeUpSafe International (**Raj Iyer**).

Lastly, I want to extend our gratitude and appreciation to **Lena Sun**, serving as representative of PALC and Advisor on the WUS Executive Committee, for her strong commitment to WUS. We value her excellent counsel and look forward to her continued support and guidance.

WUS currently has 40 members children's hospitals and practices and we look forward to having 3-4 new member hospitals join us this year. Two major WUS initiatives are underway for 2023 - the launch/go live of the new database this month and a WUS strategic planning session, scheduled to immediately follow the April SPA meeting in Austin this year. As you begin using the database, we look forward to your continued feedback on the usability of the new numerator/event database. Our goal with the strategic planning session is to collect membership thoughts on the future of WUS and include as many of your voices as possible.

The Improvement project we've undertaken this year is *"Reducing Perioperative Peripheral IV Infiltrations and Extravasations."* Please reach out to **Imelda Tjia** if you would like to join this initiative or need more information.

Once again, thank **you** for your personal commitment to children's quality and safety in the perioperative arena and I look forward to working with you to advance this goal.

Sincerely,

Anna

Executive Director



Jay Deshpande, MD MPH FAAP

Dear colleagues, I am delighted to re-join the WUS team and first want to thank Don Tyler for his leadership as the founding executive director, working over more than a decade to shepherd our collaborative efforts to reduce perioperative harm and improve care for children. I also want to thank the SPA administrative offices at Ruggles for their continued help and guidance. This is an exciting time at WUS – a new database, new leadership and new opportunities to collaborate with the SPA quality and safety committee and with our surgical colleagues toward our common safety and improvement goals. I look forward to working with the WUS executive team, the committee leaders and each of you.

Jay

NEW DATABASE IS LIVE as of 1 January 2023!



David Buck, MD

We are excited to report that the new WakeUpSafe database is now live. **The data governance committee (David Buck, Chair; Manon Hache, Bishr Haydar, Raj Iyer, Sally Rampersad, Helen Shi, Lena Sun, Imelda Tjia, Rich Tsui, Josh Uffman, Anna Varughese)** approved the database to go-live. The committee worked with the development team led by Raj Iyer and Rich Tsui to implement improvements in response to WUS members' comments on the beta test version which was introduced at the Fall 2022 meeting in New Orleans. The resulting database version 1.2 is now ready for patient data.

Appropriate cases from 1 January 2023 forward should be entered into the database.

We expect that during this year we will have opportunities to identify potential tweaks and improvements.

The development team and the WUS data governance committee have put in place a process to collect your suggestions and work on periodic updates.

Few important highlights from the announcement:

- **The Database is live as of Jan 1, 2023, for numerator/case data.**
- **Institutions that wish to do so can enter data for periods before that date for their own use but those data will not be included in the WUS analyses.**
- **Quarterly reports from the numerator data will be pushed out regularly beginning in mid-2023.**
- **The proposed lock date for data entry is 30 days after the end of the quarter. The reports will be available about 45 days after the end of each quarter.**
- **We will aim to coordinate the deadlines to be consistent with NSQIP deadlines to make it easier for hospital staff.**

2022 Annual Meeting in New Orleans in Brief

The WUS Annual Meeting was held in New Orleans on Sunday October 13, 2023. The program director, **Neha Patel**, put together an excellent educational program that included an introduction to the new database and a session that featured three excellent quality improvement projects by member institutions.

Highlights

- **Don Tyler**, MD outgoing executive director of WUS, honored.
- Annual Business meeting convened.
- **Anna Varughese**, MD assumes the role of WUS president.
- **Bob Brustowicz**, MD, from Boston Children's Hospital, announced as president-elect.
- **David Buck**, MD, transitions to immediate past-president and chair of data governance committee.
- WUS 2023 budget approved.
- Members are eager to resume peer site visits.
- **Imelda Tjia**, MD reports on follow up to the PIVIE best practice change packet implementation.
- **Raj Iyer**, MD, **Rich Tsui**, PhD and **Helen Shi** (CHOP database development team) and **David Buck** introduce the beta test version of database and lead workshop.

Quality improvement project presentations

(PowerPoint presentations of the talks were distributed to members previously and are available by request).

Lenard Babus, MD (CHOP): Perioperative Virtual Reality Program Implementation Using Quality Improvement Methodology at an Ambulatory Surgery Center

Max Shilling, MD (LeBonheur Children's): Implementing precision opioid prescribing for pediatric patients undergoing common ambulatory urologic procedures.

Gabriel Gallegos, MD (Children's Omaha): Improve the utilization rate of ultrasound for peripheral intravenous line placement for patients receiving anesthesia care.

Dr. Tyler recognition

Many thanks to Don Tyler for his many years of dedication and service from the inception of WakeUpSafe until his retirement in June.



Don at work



Don in retirement

The 2023-2025 executive team



Anna Varughese, MD

President



David Buck, MD

Immediate Past



Bob Brustowicz, MD

President-Elect



Lena Sun, MD

PALC Liaison/Advisor

WakeUpSafe Quality Improvement Workshop at ACS Quality & Safety Conference July 2022



Left to right: Drs. Bob Brustowicz, Jay Deshpande, Anna Varughese, David Buck, Megha Kanjia, Imelda Tjia, Tetsu (Butch) Uejima

We are delighted to report that the WUS QI education team was invited to present the first quality improvement workshop the American College of Surgeons 2022 national Q&S conference in Chicago. Registration was expected to be around 30; but the onsite demand far exceeded expectations, with more than 75 participants! The WUS team was

able to accommodate all participants and received high accolades for the learning sessions. Based on the feedback, ACS and WUS are working on a proposal for a second workshop at the 2023 conference in July.

A few of the Participant Comments

Thank you for your very authentic, informative session...

Nice overview of practical tools to implement QI projects...

Excellent speakers, provided useful information, and encouraged attendees participation

Excellent session with good mix of didactics and demonstrations

This session was amazing. Allowing hands on training...LOVED it.

Learning clear and specific smart aims...

Committee Reports

Education Committee



Neha Patel, MD

Wake Up Safe Educational Committee Members are **Neha Patel** (CHLA, director), **Gina Whitney** (Children's Colorado), **Jami Miller** (Children's Health Dallas), James **Bradley** (LeBonheur Children's), **Priti Dalal** (Penn State) .

The WakeUpSafe educational committee comprises individuals who are well versed in quality improvement and represent academic and private practice physicians. Each committee member has unique experience in quality improvement in their institution and representation nationally. We all have common struggles when creating, implementing, or sustaining a quality improvement effort. We also understand the challenges associated with governmental regulation of quality improvement. Finally, we all also want to make sure we do our best to advocate for patient safety. Our committee is a collaborative group who hopes to explore QI educational opportunities. With our breadth of knowledge and experience, we hope to collaborate to find the best, most relevant speakers. We hope to create an educational program that helps find solutions and empowers our member organizations to implement change.

Research and Communications Committee



Manon Haché, MD

The members of the Research and Communications Committee of WakeUpSafe include **Manon Haché** (director, Columbia), **Angela Lee** (DC Children's), **Amanda Lorinc** (Vanderbilt), **Kavitah Raghavan** (St Jude's) and **Lena Sun** (Columbia).

One of the missions of the Research and Communications committee of Wake Up Safe is to develop and implement procedures and protocols to promote the development of research projects involving the WakeUpSafe database. We also aim to prioritize the research agenda of WakeUpSafe by encouraging and supporting member involvement in research projects. We have developed a data request form that can be submitted to the committee and will be

reviewed to ensure that the data available can support the research project and to avoid duplicating efforts when it comes to research questions.

We have coordinated updates to the SPA membership about WakeUpSafe through publications in the SPA newsletter, helped develop the most recent website and assisted in the coordination of the monthly WUS meetings.

With the new database event reporting website going live this month, we wanted to encourage everyone to reach out if you have any questions about research ideas or recommendations when it comes to communications about Wake Up Safe. We welcome any new members to the committee. Please feel free to email me (mh2289@cumc.columbia.edu) for any questions.

Included below is the Database request form that can be submitted for any research project ideas.

Quality Improvement Committee



Imelda Tjia, MD

For the past several years, Wake Up Safe (WUS) institutions have implemented multiple strategies to prevent medication errors in the operating room. This past year, WUS has decided to tackle another important safety initiative, prevention of perioperative peripheral intravenous (PIV) catheter infiltrations. Infiltrations and extravasations can lead to swelling and pain, even blisters, infection, and chemical burns ¹ that could lead to patient discomfort. Injury from infiltrated IV's may even result in severe harm such as necrosis of soft tissues or compartment syndrome.^{1,2} Aside from the physical pain, PIV infiltrations may result in emotional distress for the patient and family as well as the caregivers. Furthermore, infiltration events have the potential to incur additional hospital expenses (i.e., lengthened nursing and physician time, extended length of stay, supplies, etc.).

³

Using data from WUS institutions, various strategies are implemented with the aim of decreasing the incidence of perioperative PIV infiltration events. Scheduled intraoperative IV checks or programmed EMR reminders to evaluate IV sites intraoperatively have been proposed. Parental collaboration to help providers identify infiltrated IV sites and IV pump alarm adjustments are other approaches that are being explored. Institutions are employing

the use of technology for IV site monitoring. Vein visualization technology is widely used by WUS institutions and methods to optimize its use are shared during WUS discussions. With various interventions to prevent perioperative PIV infiltration events, WUS hopes to demonstrate positive outcomes and improve patient satisfaction.

The task force focusing on this QI initiative includes **David Buck** (Cincinnati Children's Hospital), **Jenny Dolan** (Johns Hopkins All Children's Hospital), **Marc Mecoli** (Cincinnati Children's Hospital), **Kavitha Raghavan** (St Jude Children's Research Hospital) and **Anna Varughese** (Johns Hopkins All Children's Hospital).

References:

1. Amjad, I., Murphy, T., Nylander-Housholder, L., & Ranft, A. (2011). A new approach to management of intravenous infiltration in pediatric patients. *Journal of Infusion Nursing*, 34(4), 242–249.
2. HADAWAY, L. Y. N. N. C. (2002). I. V. Infiltration. *Nursing*, 32(8), 36–43.
3. Major, T., & Huey, T. (2016). Decreasing IV Infiltrates in the Pediatric Patient: System-Based Improvement Project. *Pediatric Nursing*, 42(1), 14–20.

WUS International



Raj Iyer, MD

WakeUpSafe is active internationally and is creating collaborations under the leadership of Director of WUS international outreach Dr. Raj Iyer from CHOP. This activity is supported by CHOP Anesthesiology Chair Dr. Dean Kurth.

Here are the following activities that are ongoing and completed:

1. **India:** There are 4 hospitals in India that have obtained IRB approval to move ahead with the database entry. The test database is set up and is presently on hold due to revisions with the USA WUS database. After approval from the WUS, the new database schema will be shared with WUS India with a similar process of how the previous database was shared.

Raj met the Indian leadership in October 2022. Based on this meeting, Dr. Narayana from PGIMER, Chandigarh was identified as the main contact for the next iteration of the database for both clinical and technical aspects. The Indian leadership

Dr. Elsa Varghese is the WUS Director of India. The leadership acknowledged the extremely high and complex clinical volumes keeping the WUS hospital representatives

busy. Masimo Foundation has supported funding for this activity with Raj Iyer from CHOP as PI for this. There are ongoing conversations regarding hiring support personnel in India.

CHOP WUS was expecting Dr. Varghese and Dr. Sandhya from PGIMER to visit CHOP and US WUS hospitals. However, due to the long backlog of visa processing times, this did not happen in 2022. This will be an ongoing conversation and the Dept. of Anesthesiology at CHOP has assured us to accommodate them anytime.

Multiple faculties from WUS USA visited India and have conducted multiple workshops and lectures. The left picture is of a workshop held at All India Institute of Medical Sciences in New Delhi. This was the first part of the conference prior to the breakout session. The middle frame is a picture where Dean Kurth is discussing active collaboration with the Director of PGIMER, Chandigarh. PGIMER, Chandigarh is recognized by US News World Report as one of the best in India, Asia, and Global Universities. In the right frame, Dean is felicitated by the Indian Association for active collaboration and helped set up the first patient safety organization in India specific for pediatric anesthesia.



2. **Australia and New Zealand:** The SPANZA (Society for Paediatric Anaesthesia in New Zealand and Australia) is excited to have an active collaboration with CHOP and WUS in the USA. Raj Iyer presented to the SPANZA leadership regarding the implementation of such a collaboration and pitched the idea of conducting a workshop at their conference. SPANZA leadership is excited to create a WUS database the first of its kind specific for pediatric anesthesia in Australia and New Zealand. The leadership invited Raj Iyer and team to conduct a workshop at their National Conference in Sydney, Australia. The workshop faculty included Sally Rampersad and Elizabeth Hansen from Seattle Children's and Megha Kanjia and Imelda Tjia from Texas Children's Hospital. The below pictures are from the workshop.



3. **Singapore:** The WUS faculty had conducted a virtual workshop with the Asean Society for Paediatric Anaesthesia in 2021. This was well received. In follow-up with active collaboration, Raj Iyer was invited to KK Children's Hospital in Singapore. KK Children's is the largest pediatric hospital in Singapore and was established in 1858. In addition to providing a grand round on safety, Raj Iyer discussed ongoing collaboration with WUS with the Singaporean leadership in October 2022. This picture is from the presentation at KK Children's.



4. **European Society for Paediatric Anaesthesia (ESPA):** WUS conducted a workshop at ESPA a couple years ago. However, the ESPA hospitals are in the Safety 0 and 1 phases of care and many are still learning the basics of QI and Safety Analytics. The level 3 WUS members will continue to deliver lectures at the annual meeting by invitation.
5. **Association of Paediatric Anaesthetists of Great Britain & Ireland (APA), other local conferences in Great Britain:** The level 3 USA WUS members will continue to deliver lectures at annual meetings by invitation.
6. **Canada:** In discussion to partner with pediatric anesthesia society like partnership with India IAPA.