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Hail to the Chief! So, What's It Really Like to Be ASA President?

Zachary Deutch, MD, FASA Randall M. Clark, MD, FASA

This month, we will be talking with someone familiar to you all, Dr. Randall Clark, ASA Immediate Past President. Having just finished a busy year as head of our society, Dr. Clark has much insight and many interesting anecdotes about his time in office. If you are like me, you have wondered what professional and personal life changes occur and what type of interactions happen for high-profile ASA leaders, such as those on the Executive Committee, once they take office. And what position could be more high-profile than that

of president? I hope you are as eager as I am to hear the thoughts and recollections of Dr. Clark.

Dr. Clark, thank you for joining us. Can you describe your professional life now that your presidential term has completed? First of all, "LOL" on the title of this piece. I can't remember any ruffles and flourishes during my year as president, but everyone always treated me very nice! After finishing the year in October, I retired

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Shown here in the clouds and on oxygen in the Clark family Columbia 400.



Respiratory Syncytial Virus and Immunity Debt

Richard Simoneaux Steven L. Shafer, MD, FASA,
Editor-in-Chief

We can't get a break! Having battled SARS-CoV-2 for the past two years, the past few months have seen health care systems facing a "tridemic" comprising COVID, respiratory syncytial virus (RSV), and in-

fluenza. The national surge in RSV has been widely documented in the media as well as the peer-reviewed literature. A recent article from the *Journal of the American Medical Association* captured

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Anesthesiologists as Chief Experience Officers

D. Matthew Sherrer, MD, MBA, FASA, FAACD;
Andrew D. Franklin, MD, MBA, FASA, FAACD; Nirav V. Kamdar, MD, MPP, MBA;
Mitchell H. Tsai, MD, MMM, FASA, FAACD; Richard P. Dutton, MD, MBA, FASA

Don't harm me. Heal me. Hear me. For decades, health care organizations have held this high-reliability adage as the aspirational ideal for patient expectation. By reaching near Six-Sigma levels of safety, modern anesthesiologists have delivered on the first two tenets. It's time for anesthesiologists to focus on the third in both practice and leadership (*Ann Intern Med* 2005;142:756-64).

In 2018, Wazir et al. explored the relevance of patient satisfaction in the perioperative space (*Ann Intern Med* 2005;142:756-64). With both public and private payers shifting a larger proportion of health care costs to the patient, the authors noted that patients have naturally shifted mindsets toward that of an active consumer. Anesthesiologists have long

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SPECIAL SECTION

Medical Humanities and the Arts

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Guest Editor: Audrey Shafer, MD

What is your proudest achievement, and what do you regret that you could not accomplish?

I was able to continue or initiate a very large number of projects in the society. These include expanding mentoring and sponsorship as well as other professional development programs, working with FAER (and others) to increase our exposure to medical students earlier in medical school, re-assessing how the Anesthesia Quality Institute can continue to improve the care we provide, and raising awareness on how we make a difference for our patients. This latter aspect takes a huge amount of time because it includes protecting anesthesia care in the VA system, rolling back pandemic-related emergency suspensions of physician supervision, and countering

the endless onslaught of attacks on the practice of medicine taking place in the 50 states.

Probably no single issue occupied more time in the last year than the economics of anesthesia practice. The federal No Surprises Act has the potential to kill our specialty. Our 30-year (and as yet unrealized) goal to fix the severely broken Medicare and Medicaid payment system is the flip side of that coin. I am proud that I have been able to bring some new ideas to that fight, including looking for discrepancies between Medicare/Medicaid conversion factors and what the government pays for anesthesia services when it purchases them directly through government-employed physicians. We are also working on a novel but long-shot legal strategy on Medicare payment reform.

Any advice for ASA members contemplating higher political office in the society?

This is perfect timing as this is the subject of my “Leadership Perspectives” column in, I believe, this month’s *Monitor* (see page 9). I would refer readers to that piece for detailed information on the subject.

What do you do for relaxation/wellness?

I have the best family a person could ask for, so they make wellness easy. My wife and I enjoy watching movies on the weekends and going out to dinner. I have had a lifelong love of aviation, and we have a beautiful airplane. Keeping professionally proficient and up to date on instrument flight procedures takes a fair amount of time. We look forward to more trips in the coming year, especially to visit our daughters, who have completed graduate school and are now working. I love

skiing, biking, and tinkering with electronics. I am really looking forward to getting my home office unpacked and organized!

Any parting words for readers?

Serving as ASA President has been the privilege of a lifetime. There is no way for me to adequately thank the members of ASA for the experience other than to continue to try and make a positive difference when I can. Combined with the joys of taking care of pediatric patients, I have had a truly wonderful career, and I hope everyone reading this can experience even 10% of the happiness I have had. ■

Remember, I welcome feedback and any who wish to volunteer as an Expert and be a co-columnist; please reach out to me at zdeutch@yahoo.com.

In the Know: RSV

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the sense of urgency among pediatricians: “This Is Our COVID” – What Physicians Need to Know About the Pediatric RSV Surge” (*JAMA* 2022;328:2096-98).

A much earlier than normal outbreak of RSV has stretched pediatric hospital resources nationwide (asamonitor.pub/3Xy-4Aax). Abbasi from the University of Texas Health Science Center at San Antonio described the situation: “In a vacuum, that would probably not be the end of the world.... But it’s on top of a really, really high flu season on top of a global COVID-19 pandemic. So, it’s sort of this horrible three-layer ice cream cone that is putting a lot of burden on the pediatric systems in the region and nationally” (*JAMA* 2022;328:2096-98). Just as with COVID, the surge in RSV has been global (Figure 1).

What is behind this sudden surge in RSV? Some pediatricians have attributed it to “immunity debt.” Nonpharmaceutical interventions like masking and social distancing implemented in 2020 and 2021 to mitigate the transmission of COVID-19 prevented the typical exposure to pathogens. As a result, children did not develop immunity to the traditional panoply of childhood infectious diseases. Instead, respiratory infections that typically would have occurred throughout 2020 and 2021 appeared as a destructive wave in 2022.

Immunity debt concept

RSV is one of the most prominent causes of lower respiratory tract infections,



affecting nearly all children before the age of 2 (asamonitor.pub/3weGHbC). While RSV can cause infections among all age groups, the most severe infections typically occur in infants and young children. For most adults and older children, RSV infection does not pose a threat. However, severe infections are now increasing in the elderly and adults with comorbidities.

This concept of “immunity debt” was raised in a 2021 publication authored by the French Pediatric Infectious Disease Group, which observed that the “reduction of infectious contacts secondary to hygiene measures imposed by the pandemic may have led to a decreased immune training in children and possibly to a greater susceptibility to infections in children” (*Infect Dis Now* 2021;51:418-23). Presciently they noted that “low viral and bacterial exposures due to NPIs (non-pharmaceutical interventions) imposed by the COVID-19 pandemic raise concerns as we may witness strong pediatric epidemic rebounds once personal protection measures are lifted.”

The implementation of widespread masking and handwashing during the

pandemic allowed for a comparison of the RSV disease activity during the pre-pandemic seasons to those during the pandemic. Typically, RSV disease activity peaks around December. During the pandemic, there was a dearth of RSV infection, except for a surge during summer 2021 when nonpharmaceutical interventions were relaxed. As noted by Bardsley and colleagues, “the absence of RSV activity in England during the winter of 2020-21 and then atypical activity in summer 2021 was unprecedented in the modern epidemiological era, and was most likely due to the introduction and subsequent relaxation of public health non-pharmaceutical interventions to mitigate the spread of COVID-19” (*Lancet Infect Dis* 2022;S1473-3099:00525-4). An accompanying commentary noted that “immunity debt” might be “an unintended consequence of non-pharmaceutical interventions” (*Lancet Infect Dis* 2022;S1473-3099:00544-8).

This concept of immunity debt is controversial. A robust rebuttal was published by the McGill University (Canada) Office for Science and Society (asamonitor.

pub/3iKMRNK). The author, Jonathan Jarry, criticized the French Pediatric Infectious Disease Group for “boldly asserting the existence of an immunity debt in children” and “opening the floodgates.” As Mr. Jarry notes, following the publication by the French group, immunity debt “was being quoted in other papers and in media reports, and now we are led to believe that our immune system is just like a muscle: stop working it out and it will atrophy.”

The primary criticism of immunity debt is that “...children during the pandemic were not kept in sterile bubbles. They were in contact with microorganisms from the food that they ate, the soil that they played with, and the adults in their lives.” Mr. Jarry attributes the rise in pediatric RSV and other infections to nonimmune factors. “It’s not just RSV that is putting kids in the hospital but respiratory enteroviruses, influenza, and parainfluenza as well. These are viruses that many children were not exposed to {during the COVID lockdowns} ... and there is now a lot of catching up to do.”

The only ground ceded by Mr. Jarry is that pregnant mothers may have had less exposure to RSV, which could theoretically have reduced cross-placental transfer of antibodies.

The best description of immune debt may be in George Carlin’s 1999 HBO special “You Are All Diseased” (asamonitor.pub/3wb7upy). Carlin notes that nobody growing up in his New York City neighborhood ever got sick. He attributes this disease resistance to the kids swimming in raw sewage in the Hudson River “to cool off” (asamonitor.pub/3XfYfQT). Carlin’s explanation of immune debt is spot on, including the logical fallacies (e.g., swimming in sewage is not a good idea).

RSV biology/pathology

Human RSV belongs to the genus *Orthopneumovirus*, which also includes

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In the Know: RSV

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bovine RSV and murine pneumonia virus (asamonitor.pub/3weGHbC). The genome of RSV consists of approximately 15,000 bases (roughly half the size of SARS-CoV-2) and encodes 11 proteins. The most relevant of these proteins clinically are the glycoprotein (RSV-G) and fusion protein (RSV-F). Together, these proteins mediate viral attachment and cellular entry (*Nat Rev Microbiol* 2019;17:233-45). They also serve as the epitopes for formation of neutralizing antibodies (*Pathogens* 2019;8:67).

Failed vaccine efforts

Attempts at vaccine formation against RSV in the 1960s were spectacularly unsuccessful, increasing disease severity among those having RSV infections post-vaccination, which included the deaths of two children (*Nature* 2021 Dec;600:379-80). Enhanced infections following vaccination are usually the result of Fc receptor-mediated antibody dependent enhancement (*Clin Diagn Lab Immunol* 1994;1:670-7). Vaccine effi-



Figure: RSV Submissions to GISAID (asamonitor.pub/3wtF1LI).

cacy also may have been impaired if the formaldehyde used to deactivate the virus reacted with surface proteins (*Nat Med* 2006;12:905-7).

Current therapeutic approaches

Several therapeutic interventions are on the horizon for RSV, including modern vaccines, monoclonal antibodies, and small molecule fusion inhibitors.

A recent study of the vaccine candidate RSVpreF found that vaccination reduced symptomatic infection and viral shedding, without any signals suggesting safety issues (*N Engl J Med* 2022;386:2377-86).

RSVpreF was also evaluated in pregnant women (*N Engl J Med* 2022;386:1615-26). The authors found that “RSVpreF vaccine elicited neutralizing antibody responses with efficient transplacental transfer and without evident safety concerns.”

Monoclonal antibodies are being developed for treatment of severe RSV. One of the first is nirsevimab, a monoclonal that recognizes portions of the RSV fusion protein. A study in term and late preterm infants documented that a single dose given prior to the RSV season protected children from “medically attended RSV-associated lower respiratory tract infection” by a single dose of the antibody

prior to the RSV season (*N Engl J Med* 2022;386:837-46). Additionally, the antibody produced “fewer medically attended RSV-associated lower respiratory tract infections and hospitalizations than placebo throughout the RSV season in healthy preterm infants.”

Lastly, small molecule fusion inhibitors are being investigated to treat RSV (*Nat Commun* 2017;8:167). Fusion inhibitors block RSV from entering cells.

Despite the debate over “immunity debt,” there is a good argument that the present RSV surge represents “catching up” on several years of RSV following relaxation of nonpharmaceutical interventions against COVID-19. As has happened with COVID-19 over the past three years, the surge in RSV is driving research into vaccines and novel therapeutics. We will be better prepared next time.

The good news is that new variants of RSV do not appear to be emerging, based on genomic sequencing data (asamonitor.pub/3XAgksl). This is very different from SARS-CoV-2, which mutates faster than we can develop monoclonal antibodies. The low mutation rate for RSV suggests that the RSV surge seen over the past few months is not likely to recur for some time. ■

2023

ASA Practice Guidelines for Preoperative Fasting

These practice guidelines are a modular update of the “Practice guidelines for preoperative fasting and the use of pharmacologic agents to reduce the risk of pulmonary aspiration: Application to healthy patients undergoing elective procedures.” The guidance focuses on topics not addressed in the previous guideline: ingestion of carbohydrate-containing clear liquids with or without protein, chewing gum, and pediatric fasting duration.



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