Counterpoint: Image Gently: Should It End or Endure?

Donald P. Frush, MD

INTRODUCTION

Image Gently® should be terminated. I agree.

This statement is not much of a counterpoint to Dr Cohen’s [1] perspective. But, as with many things, the essence really lies in the journey. And our paths and perceptions along the way are quite different.

Before discussing this journey, there are a few points to make. First, I will not respond to the individual items in Dr Cohen’s commentary. I don’t believe this is fair, as he has not had an opportunity to represent his position knowing what I will clarify. But I also don’t believe it is necessary for me to respond specifically, as I submit that a factual review of the Image Gently Alliance mission, efforts, and impact stands on its own merits. I also am not going to address “as low as reasonably achievable” or whether the cancer risk of low-level ionizing radiation such as that requisite in much of diagnostic imaging exists or not. These are topics that are debated, continue to evolve, and are much broader and deeper than the subject of the value of Image Gently. My perspective in this commentary is founded on the conviction that we have through assurance a professional responsibility to provide informed and appropriate service to our patients, their caregivers (including our health care colleagues), and the public [2].

THE IMAGE GENTLY ALLIANCE

The Alliance for Radiation Safety in Pediatric Imaging, more familiar as the Image Gently Alliance, was conceived and created in 2007. The alliance now comprises more than 100 professional societies and organizations and greater than 1 million professionals. The alliance was not formed in response to an individual article or event but from a general recognition from the leadership of the Society for Pediatric Radiology, along with like colleagues from the American Association of Physicists in Medicine, ACR, and American Society of Radiological Technologists, as an organization committed to advancing the understanding, through social marketing [3], of improving the use of ionizing radiation in medical imaging in children, including guidance on performance of the procedures. Quality is also paramount here, and I will revisit this soon.

There was a consensus need for the mission of Image Gently to be aware, accountable, and advance (improve) what we were doing [2,4]. This mission is founded in advocacy through positive and productive perspectives rather than assuming a “harm and alarm” point of view. These constructive perspectives have been promoted through five modality-based campaigns and one professional (dental) campaign, with two currently developing campaigns: Think A-Head, targeting medical imaging, such as CT, in minor head trauma in children, and a campaign partnering with our pediatric cardiology colleagues, Have-A-Heart.

THE LANDSCAPE

Dr Cohen has very clearly pointed out much of the landscape, and I recommend reading his engaging article outlining much of the media-based dialogue about children, radiation used in diagnostic imaging, and cancer risk particularly [5]. I agree with his position that there is uncertainty in the risk. Recently, McCollough et al [6] provided an excellent review of appropriate dialogues related to this uncertainty, and Guillerman [7] offered insights into risk perception, especially relative to parents and radiation risk. Uncertainty by its nature affords different and sometimes resolute perspectives, including fear of the unknown (and I would add the promulgation of anything through the hindernet). I will not revisit the evidence Cohen has presented, but I will provide a recent e-mail from a parent I will call Ben. Ben asked, after his 6-month-old son had a minor head injury (from which he eventually recovered) and medical imaging,

This radiation dose for such a young age had me concerned. Not knowing where to go with
my questions, I found your website and would greatly appreciate any insight on how this may affect him....Should we be worried? Thank you kindly for any feedback you may provide.

This is a common request.

**IS IMAGE GENTLY ROGUE?**

Is the Image Gently Alliance in fact misinformed and wandering rather than directional, with head down and ignorant? Ben didn’t think so. And I have not received or heard of any e-mails from parents over the past nearly 10 years that expressed dismay over the alliance’s efforts to provide balanced information on the use of ionizing radiation in medical imaging in children. This is where Dr Cohen’s paths and perceptions and those of the Image Gently Alliance diverge.

Are we rogue? Or are there others on a similar journey? Image Wisely® (www.imagewisely.org) was developed to address similar needs in adults and uses similar strategies as Image Gently. The American Association of Physicists in Medicine, ACR, and RSNA are parent organizations of Image Wisely. More recently, in 2014, EuroSafe (www.eurosafefimaging.org), followed by AFROSAFE (www.afrosarad.org), Japan Safe Imaging, Canada Safe Imaging (www.canadasafeimaging.ca/en/homepage), and LatinSAFE (www.latinSAFE.org) were created along similar lines. There is no individual organizational “attribution” necessary here. All organizational leadership recognizes the same deficits in awareness and the same opportunities: a shared mission, a shared journey. Moreover, regulatory, guidance, and accreditation organizations in the United States such as the FDA, the Environmental Protection Agency, CMS [8], and The Joint Commission have appreciated the need for improved understanding and practice of ionizing radiation use in medical imaging and image-guided procedures in children. The Joint Commission, in its revised diagnostic imaging services requirements, effective July 2015, provided the following guidance [9]:

**Training on Image Wisely and Image Gently Tools for Radiation Dose Optimization**

The new standards also refer specifically to Image Wisely and Image Gently:

- The [facility] verifies and documents that technologists who perform diagnostic computed tomography (CT) examinations participate in ongoing education that includes annual training on the following:
  - Radiation dose optimization techniques and tools for pediatric and adult patients addressed in the Image Gently and Image Wisely campaigns
  - Safe procedures for operation of the types of CT equipment they will use

Imaging facility personnel can help ensure that they meet this new TJC requirement by:

- Reviewing the Image Wisely and Image Gently website content
- Pledging to Image Wisely and Image Gently
- Enrolling in free continuing education, such as the Image Wisely Radiation Safety Case series and the educational module, Image Gently Child-Sizing CT Dose:

Optimizing Patient Care Through Quality Improvement

Image Gently is involved in dialogues with guidance, regulatory, and accrediting organizations in the development of material relevant to pediatric imaging, details of which are beyond the scope of this conversation. Suffice it to say that there is a well-developed and mutually beneficial network that has resulted in balanced information. As well, the National Council on Radiation Protection and Measurements created a political action committee, PAC 7: Radiation Education, Risk Communication, Outreach, and Policy [10], dealing with the importance of communication to education, including in medical imaging. More recently, the World Health Organization published “Communicating Radiation Risks in Paediatric Imaging: Information to Support Healthcare Discussions About Benefit and Risk” [11], addressing the importance of balanced risk assessment and risk communication. In addition, the American Board of Internal Medicine Foundation started the Choosing Wisely initiative, recently acknowledging the formative role of Image Gently and Image Wisely in Choosing Wisely’s mission and strategies to avoid unnecessary care [12].

Image Gently is on a globally recognized and well-traveled path.

**CHANGES**

Are we improving health care because of these efforts? Measuring the success, including increasing awareness, has always been a challenge of the Image Gently Alliance. One could argue that the global
The continued need for informative and balanced communication is clear. In May 2016, at the International Pediatric Radiology meeting in Chicago, Dr Cohen, Mohan Doss, PhD, Cynthia McCollough, PhD, and I spoke to this issue of cause and effect of Image Gently in advancing or allaying fears. I asked the international audience, composed of several hundred individuals, primarily pediatric radiologists, essentially the following: “When you have a conversation with a child’s family or caregiver about radiation and risk for their child undergoing an imaging procedure, is their initial understanding more often than not well informed?" Not one individual raised a hand. When the reverse question was asked, the majority of hands were raised.

CHANGE AND CHALLENGE CAN BE GOOD

Journeys can also change the way you look at issues. We have evolved as an organization from one emphasizing radiation dose reduction as the primary platform (arguably necessary at the beginning given the wide variation and excess in doses delivered, for example, in CT) to one focused on improving radiation use and the importance of continuing to emphasize the profound value of imaging. We also need to remind ourselves of study quality and the fundamentals of performance. In CT, for example, these include appropriate immobilization and use of intravenous contrast media. Kim et al [15] recently compared technical factors between studies performed at Texas Children’s Hospital in Houston and outside practices in CT evaluation in the setting of possible acute appendicitis in children. They found no significant differences in the dose metrics between the populations (an impact of Image Gently?) in study series, but 40% of the referral studies had techniques that investigators considered suboptimal, such as no use of intravenous contrast media.

We need to constantly assess and reevaluate our messages, our messaging, and our audiences. We need to improve advocacy in the use of social media. We can do better here. It is difficult to keep content current. Given the limited resources of Image Gently as a volunteer organization, it is difficult to constantly battle the loud voices of "harm and alarm," which seem to be coveted with great promotional sympathy through the media. It is also challenging to maintain objectivity through independence, free from conflict of interest and the lure of fiscal sirens.

And we need to be critical. I applaud Dr Cohen. His position is welcomed and should be heard and discussed. We must constantly evaluate what the Image Gently Alliance’s mission is, and to this end what we are doing well and what we might be doing poorly. This is healthy and necessary.

CONCLUSIONS

Back to “Image Gently should be terminated.”

When the Image Gently Alliance leadership transitioned from the visionary guidance of Marilyn Goske, MD, over the past 2 years, I said, during my first steering committee meeting as we were formalizing our strategic plan, that my mission was actually to make Image Gently unnecessary. It was provocative, perhaps a little disturbing, given the purpose-driven efforts to date. I remain optimistic that we will get
there. But we are not there yet. This consensus and valued calling must continue.

REFERENCES

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