The Anatomic Pathology Diagnostic Management Team Conference

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Clinical Laboratory Improvement Advisory Committee

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Declarations

- I have no conflicts of interest to declare
- Nothing in this session should be considered medical advice or legal advice
- The views expressed herein do not necessarily represent those of the Pulmonary Pathology Society Executive Council, the Texas Society of Pathologists Board of Directors, or the College of American Pathologists Board of Governors

“…fundamentally altered…”

- “access to information has been fundamentally altered by the Internet”
- “…many patients are becoming engaged in learning about their treatment options…”

The Oncologist®

Editorial

Practicing in Partnership With Dr. Google: The Growing Effect of Social Media in Oncology Practice and Research

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Disclosures of potential conflicts of interest may be found at the end of this article.

Oncology is in the midst of transformation on several fronts. Anatomically defined diagnoses are being reclassified into molecularly defined subsets. A growing proportion of community-based oncologists are becoming employees of hospitals that are now increasingly becoming aligned into large networks covering broad geographic territories. The growing momentum of telemedicine is beginning to confer the possibility to deliver specialty and even subspecialty care to patients who would otherwise not have such ready access to it.

Along with these significant changes, access to information has been fundamentally altered by the Internet. For the first time, a significant proportion of patients and caregivers without formal medical training are turning to Internet-based educational and support resources as they search online for relevant and reliable content. Through these efforts, many patients are

tion and its publication [3], followed by additional time for its widespread dissemination within the oncologist community.

Taken together, we can see that there is a growing volume of new clinically relevant medical information, perhaps especially in oncology, which is experiencing a transformation to increasingly molecularly defined, limited subgroups. These dramatic changes have created new challenges in the ability for the practicing oncologist to remain current on a rapidly proliferating array of treatment and research options.

More Patients Are Seeking Cancer Information Online

Concurrent with these changes in the field of oncology, more patients and caregivers are seeking very specific and current information from online sources. As we might expect, the pro-

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e-patients

- "…coincident with a fundamental change in cancer care, which is transitioning from anatomically defined large and relatively heterogeneous groups…to molecularly defined narrow subgroups based on the presence of discrete driver mutations with identifiable targets."
- Online medical community "…sources are increasingly becoming indirectly integrated into clinical practice from patients incorporating what they learn into their own decisions."
- "…e-patients — the growing population of patients who are 'equipped, enabled, empowered, and engaged in their health and health decisions…"

Lung cancer diagnostic and therapeutic delays

- **Ir J Med Sci. 2013 Oct 4. [Epub ahead of print]**
- **Timeliness of care and prognosis in patients with lung cancer.**
- **Gonzalez-Barcala FJ, et al.**
- Servicio de Neumología, Hospital Clínico-Universitario, C/Choupana SN, 15706, Santiago de Compostela, Spain, francisco.javier.gonzalez.barcala@sergas.es.
- Timeliness of care is an important dimension of health care quality. The determining factors of less timely care and their influence on the survival of patients with lung cancer (LC) remain uncertain.
- To analyse the delays in the diagnosis and treatment of LC in our health area, the factors associated with the timeliness of care and their possible relationship with the survival of these patients.
- A retrospective study was conducted on all patients with a cytohistologically confirmed diagnosis of LC between 1 June 2005 and 31 May 2008. The time delays for consultation (specialist delay), diagnosis (diagnosis delay), and treatment (treatment delay), were analysed, as well as the factors associated with these delays and the influence of the timeliness of care on survival.
- A total of 307 cases were included (87 % males). The mean specialist delay was 53.6 days (median 35 days), diagnosis delay 31.5 days (median 18 days), treatment delay 23.5 days (median 14 days). The greater age of the patient and a more advanced stage were associated with a shorter specialist delay. Male sex, a more advanced stage, and poor general status were associated with a shorter treatment delay. The survival is longer in patients with a longer treatment delay.
- The delay in the diagnosis in our population seems to be excessively long. The greater the age, a more advanced tumour stage, male sex, and poor general health status are associated with shorter delays. A longer treatment delay is associated with a longer survival.

Tumor Board

(standard dose 40 mg orally daily) were required in 52% of patients in the LUX-Lung 3 trial, and treatment-related adverse events of grade ≥3 occurred in 49% and 48% of patients receiving afatinib and chemotherapy, respectively.[6] In the OPTIMAL trial,[3] 19% of patients required dose reductions of erlotinib (standard dose 150 mg orally daily), and treatment-related adverse events of grade ≥3 occurred in 17% of patients receiving erlotinib. In total, 8% of patients on afatinib in LUX-Lung 3 required drug discontinuation owing to a treatment-related adverse event, whereas no patients in the OPTIMAL trial required drug discontinuation of erlotinib.

With regards to efficacy, afatinib, erlotinib or gefitinib have not been compared directly, although the median PFS noted in published studies seems to be similar: 11–14 months for afatinib, 8–13 months for erlotinib and 9–11 months for gefitinib. Assuming the costs of each drug are relatively similar, the question remains as to

INNOVATION

Tumour board—introducing real time to oncology management

Timothy Craig Allen and Bryan A. Liang

The tumour board has outlived its intended function—it delays care, provides minimal patient benefit, is costly, does not account for patient psychosocial issues, is not evidence-based and has numerous potential legal issues. Instead, multidisciplinary oncology teams using real-time social media and networking that integrates patient input is a better approach.

Allen, T. C. & Liang, B. A. *Nat. Rev. Clin. Oncol.* **10**, 552–554 (2013); published online 27 August 2013; doi:10.1038/nrclinonc.2013.159

Howard West[1] recently reported that patients are employing internet-based strategies to aggregate information for themselves—and in some cases for their doctors who did not know of such data. Accordingly, web 2.0 interactive technology is highly innovative and useful for this practice, making patients' integration of public and personal information online effective. West[1] also rightly points out that the oncology research community can partner with internet-savvy patients and patient

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- Real-time tumor board
- Using today's technology, adapt tumor board to meet today's real-time need
- Use web2.0 interactive technology to develop a real-time multidisciplinary cancer care team
- Fulfill tumor board's expected functions efficiently

As Soon As Cancer Is Diagnosed

- Radiologic, diagnostic, and therapeutic procedures discussed and instituted quickly
- Case manager becomes more involved; financial issues addressed
- Psychosocial issues, dietary issues, etc. are examined and addressed
- Specific patient issues could be addressed immediately, so that treatment can be instituted without delay
- Efficiently develop a tailored, evidence-based treatment plan

Real-Time Chat Functionality

- Integrated online
- Discussions integrated online with images
  - Radiologic procedures
  - Diagnostic images
- Treatment plan
- Follow up
- 100% patient involvement; always accessible by the patient

- **Residents**
  - Fellows and residents in academic centers can be intimately involved, and in some cases substantially drive the dialogue regarding work up and treatment
  - Real-time, hands-on, resident involvement promoting graduated resident responsibility

Legal Responsibility

- Stays with the team
- No passive-participation risk as in tumor boards currently
- Quality of discussions are high
- Videotaped discussions and decisions assist with regulatory or accreditation documentation
- The video can be provided to the patient

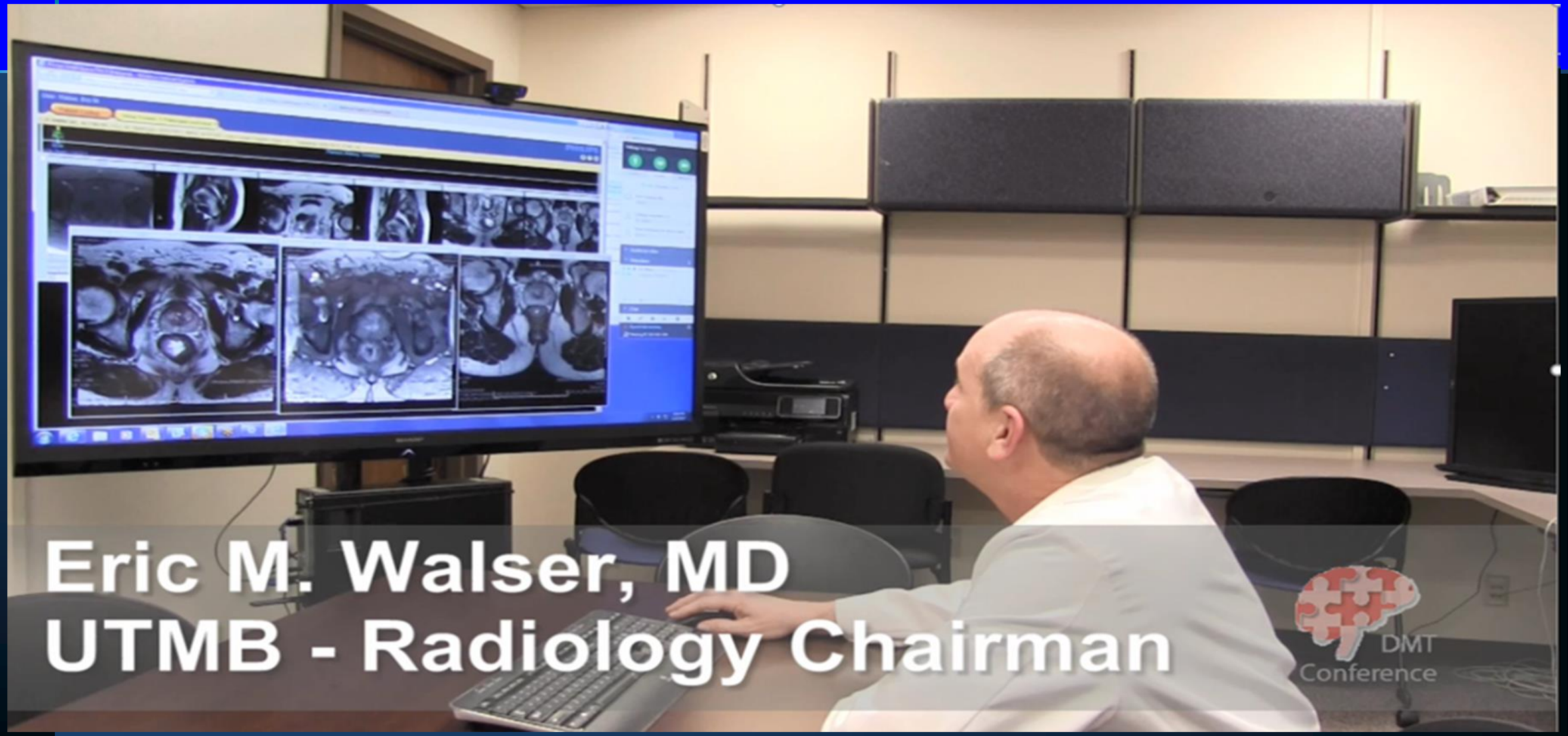
Resistance

- Cost
- Tumor board is comfort food
- Real need to congregate
- Symbolic of traditional medical practice
- Resistance to disruptive technologies
- IT set up not obvious; requires significant IT participation
- A few dedicated individuals not enough; need dedicated team and institution
- Appropriate oversight

embedded video

Eric M. Walser, MD UTMB – Radiology Chairman

https://ispace.utmb.edu/xythoswfs/webui/_xy-e15540589_1-t_e1RhQ1kn



Opportunities

- Patient care
- Patient satisfaction
- Colleagues
- Payment
- Professional sustainability
- Lowers medical-legal risk

Beyond the Real-Time Tumor Board

- Nonmalignant diseases
- Transplant cases
- Cancer as a chronic disease

“…most important task”

- “As compared with discovery science and randomized trials, the 20th-century biomedical paradigm viewed care delivery as scientifically uninteresting — too messy for serious scrutiny, like the observational and qualitative methods that elucidate it. Yet understanding how and why care delivery does or does not happen and how to improve it may now represent medicine's most important task.”

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SPECIAL ARTICLE

SHATTUCK LECTURE

Chronic Infectious Disease and the Future of Health Care Delivery

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MORE THAN FOUR DECADES AFTER ONE U.S. SURGEON GENERAL REPORTEDLY declared it “time to close the book on infectious diseases,” drug-resistant pathogens have diminished the effectiveness of once-potent therapies.[1] In the past three decades, newly described pathogens, including the human immunodeficiency virus (HIV), the severe acute respiratory syndrome (SARS) virus, and the H1N1 influenza virus, have caused pandemics, while old scourges from tuberculosis to cholera have persisted or resurged. Simultaneously, rising life expectancy and rapid social change have led to an increasing burden of chronic diseases for which we have effective therapies but inadequate innovation for delivering them efficiently to the neediest people — the so-called know–do, or delivery, gap.

As compared with discovery science and randomized trials, the 20th-century biomedical paradigm viewed care delivery as scientifically uninteresting — too messy for serious scrutiny, like the observational and qualitative methods that elucidate it. Yet understanding how and why care delivery does or does not happen and how to improve it may now represent medicine's most important task.[2]

In settings of poverty, the delivery gap can be a gulf, especially in the case of chronic illness. In the rural villages and small towns in Rwanda, Malawi, and Lesotho, where the nongovernmental organization Partners in Health has worked over the past decade, adherence to daily regimens may seem unlikely. But rapid progress can be made toward closing the gap, as we had learned in rural Haiti. Work with local, national, and international partners to develop health systems able to respond to both acute and chronic disease shows that we can, with adequate resources, improve care delivery, sharply reducing morbidity and mortality. I believe that the lessons from 25 years of responding to the acquired immunodeficiency syndrome (AIDS) and other chronic infections have implications for the chronic afflictions now recognized as leading causes of premature death and disability in places rich and poor (a slide show is available with the full text of this article at NEJM.org).

A slide show of achievements and challenges in addressing chronic infectious diseases is available at NEJM.org

FAILURES OF DELIVERY: A LOOK BACK TO THE YEAR 2000

Although many infectious diseases are acute, most deaths and debility attributed to infections are due to chronic parasitic, mycobacterial, and viral infections. As therapeutic options for these afflictions expanded in well-resourced but low-burden settings, the need for treatment in high-burden, under-resourced settings grew. By 2000, AIDS, tuberculosis, and malaria had killed about 6 million people annually, many of them very poor young adults and children. In 2000, we had no reliable vaccines for these three leading infectious killers. We did, however, have diagnostic tests, including tests for drug resistance, of varying quality; prevention strategies of variable effectiveness; and multidrug regimens that could cure or suppress infection — though the argument that treatment might also serve as prevention was not yet being made or heard.

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Thank You

- Questions?