Latest News & Updates from the Personalized Medicine Coalition

Letter from Washington

Although claiming he knew little about the subject, on 9 November 2011 at the Harvard Personalized Medicine Conference, MA, USA, Ezekiel J Emanuel, MD, PhD, an oncologist, a former senior White House advisor on healthcare, and now a professor of health policy at the University of Pennsylvania, PA, USA, established himself as the leading skeptic of personalized medicine. He called its claims exaggerated hyperbole; in particular its contention that personalized medicine – by reducing inefficiencies and adverse events – has the power to cut systemic costs. In fact, in the most serious challenge to the paradigm yet leveled against it, Emanuel said that it “will be so expensive as to be unaffordable.”

Emanuel was not invited to deliver the conference keynote, as one journalist wrote, to be the “skunk at a garden party.” He was invited because the proponents of personalized medicine need to engage his views, or rather his fears, which are serious obstacles to convincing policy-makers to support the paradigm. It is a fact that many in governments across the globe fear innovation. They claim it raises costs without improving health, notwithstanding the experience of turning HIV from a death sentence to a chronic condition, essentially by implementing the principles of personalized medicine, or by improving survival rates for cancer patients over the past 40 years, as the American Association for Cancer Research has documented in its annual report for 2011.

The Personalized Medicine Coalition knows that we need to develop answers for skeptics like Emanuel in order to persuade governments, industry and medical institutions to invest in this paradigm.

On 16 November 2011, the Personalized Medicine Coalition issued the third edition of *The Case for Personalized Medicine*, a document that illuminates the benefits of personalized medicine, and outlines a pathway to improve the regulatory, payment, and educational systems that will shape the speed with which it reaches patients [101].

To those who contend that personalized medicine may represent a dream of the future, the report points to the growth of commercially available personalized medicine products – from 13 in 2006 to 72 today, including two new targeted drugs, linked to diagnostic tests, for non-small-cell lung cancer and melanoma. These products are listed in a compendium in the back of the book, and point to a future in healthcare that moves away from one-size-fits-all, trial-and-error medicine.

Suggesting that we are likely to see many more personalized products come onto the market in the near future, the report also notes that 30% of all surveyed biopharmaceutical companies require all compounds in development to have a biomarker strategy; 50% of all clinical trials collect DNA from patients to assist that strategy; and that the pharmaceutical industry has increased its investment in personalized medicine by 75% in the last 5 years.

While acknowledging that the clinical utility of genome sequencing has not yet been established, the report also notes that the dramatic fall of the cost of sequencing from US\$300,000,000 in 2001 to \$5000 in 2011 will undoubtedly provide new data-driven understandings of individual variation, leading to tailored approaches to healthcare.

But with healthcare costs spiraling to the point that they threaten the economies of the developed world, we understand that part of the appeal of personalized medicine is its promise of reducing systemic costs. And here, *The Case for Personalized Medicine* notes that a 34% reduction in chemotherapy use would occur if women with breast cancer receive a genetic test prior to treatment; 17,000 strokes could be prevented each year if a genetic test is used to properly dose the blood thinner warfarin; and \$604,000,000 could be saved if patients with metastatic colorectal cancer receive a genetic test for the

Edward Abrahams

1225 New York Avenue, NW, Suite 450,
Washington, DC 20005, USA
Tel.: +1 202 589 1770
Fax: +1 202 589 1778
eabrahams@personalizedmedicinecoalition.org

“To those who contend that personalized medicine may represent a dream of the future, the report points to the growth of commercially available personalized medicine products – from 13 in 2006 to 72 today...”

“what is required to change minds ... are large-scale system-wide analyses that compare standard of care with personalized medicine...”

KRAS gene prior to treatment. Moreover, because they believe that it can help them get a handle on costs while improving outcomes, pharmacy benefit managers and some payers are, as the report notes, studying personalized medicine closely and implementing it where appropriate.

Unfortunately, to truly move the field forward what we need are not only single, product-specific studies, such as those referenced above; rather what is required to change minds like Emanuel’s are large-scale system-wide analyses that compare standard of care with personalized medicine approaches to determine if improved outcomes and systemic cost reduction can be achieved.

Until we do that, ours will remain an uphill, if noble, battle.

**Edward Abrahams, President,
Personalized Medicine Coalition**

■ Website

101 Personalized Medicine Coalition.
www.personalizedmedicinecoalition.org