

Oral Presentation - 40

Future Roles for Practicing Medical Toxicologists in the Evolving Medical Marketplace

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Abstract

Objectives: To assist clinical toxicologists to maintain relevance and advance the specialty in the rapidly evolving global medical landscape.

Methods: These observations are based on discussions among expert medical toxicologists using a modified delphi process.

Results: Medical toxicologists in clinical practice devote considerable time and effort developing competence and credentials in their specialty. Despite mastering a unique multidisciplinary specialty, many toxicologists earn little income through the practice of toxicology, donating their toxicological expertise and earning a living through the practice of another specialty (emergency medicine, internal medicine, pediatrics, etc.). This reduces the ability of toxicologists to advance toxicologic practice. Toxicologists may prove their value in the new marketplace by becoming shepherds of population health and using multidisciplinary approaches to improve quality of care and reduce healthcare costs, and by staying abreast of emerging science. Population health and exposure/disease prevention are among the most promising pathways to advancing the practice of medical toxicology. Since medical toxicologists are few in number and sparsely distributed geographically, toxicologists may maximize their impact by shaping policy and practice pathways, facilitating governmental bio- and toxicosurveillance, prevention and care coordination using multidisciplinary knowledge. Goals may include eliminating needless specialty consults in cases of potential toxic exposure (in part through telemedicine and poison center practice), providing management guidance through accountable care pathways, improving prescribing practices (avoiding polypharmacy and drug interactions), reducing adverse drug reactions (using improved understanding of patients at risk derived through genomics and proteomics), improving prescribing for pain management, shaping public and professional health and prevention education (bringing prevention into homes and medical school curricula), reducing population risk through disaster planning and emergency preparedness efforts (including toxicologic hazard vulnerability analysis and antidote stewardship), and providing public education distinguishing between safe and unsafe traditional and folk medicine practices. Though this approach will require time and evolution of social and cultural practices, the time to begin the transformation of the specialty is now.

Conclusions: medical toxicologists must understand the evolving medical market place within the contexts of their region, the global marketplace and the environment of clinical toxicology in order to advance the specialty and full time toxicology practice. alignment with public health may advance the specialty.