Physics plan review: the promise and the pitfalls

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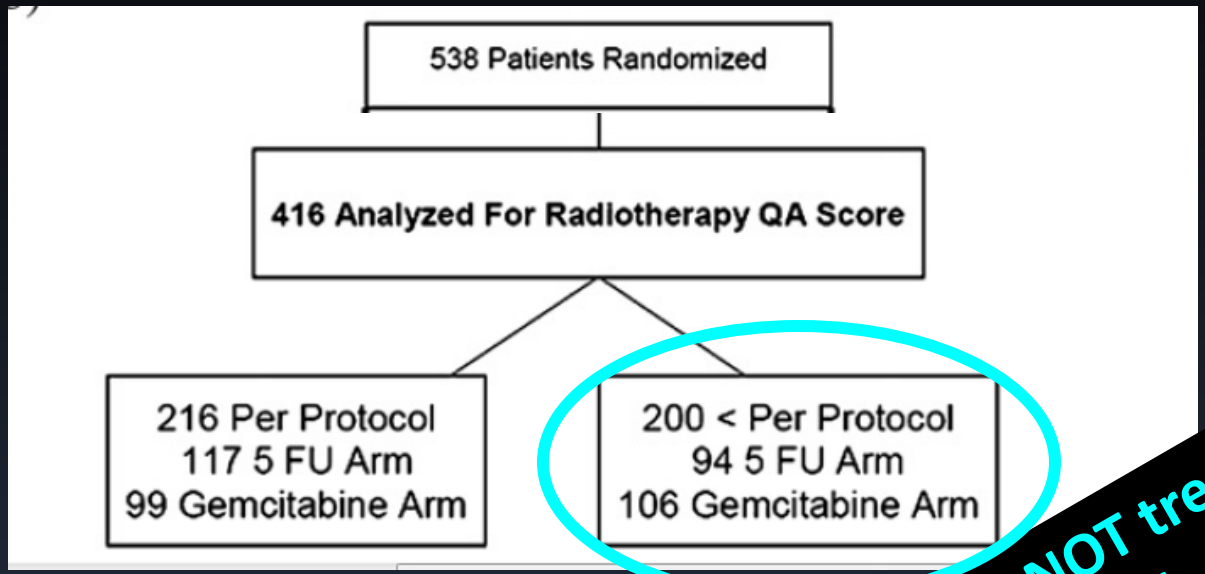
Disclosures

- AHRQ R18 HS022204-01
- NCI UG3 CA211310-01

What happens when we deliver “bad” therapy?

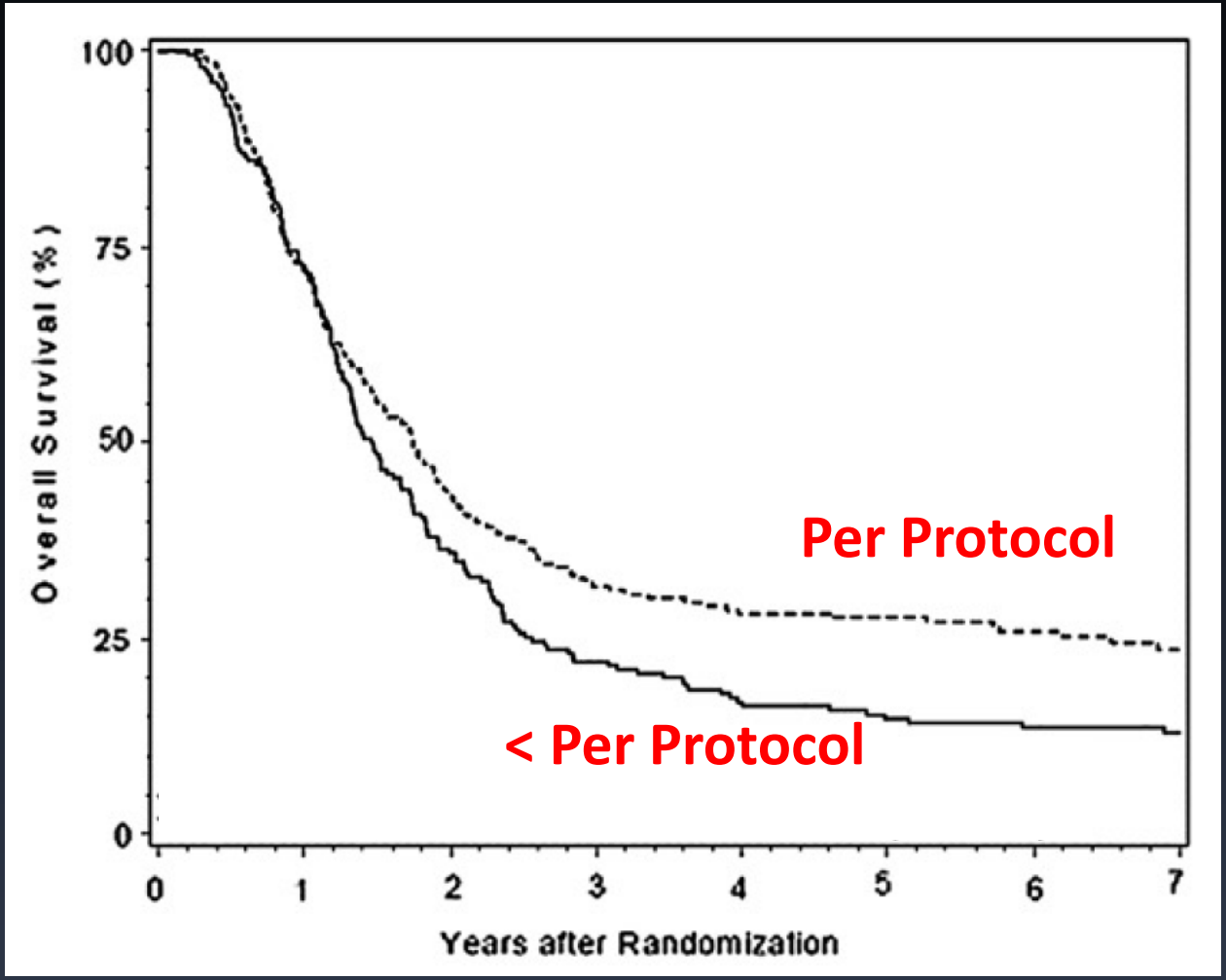
Secondary analysis of RTOG 9704 Pancreatic Cancer



48% of patients NOT treated per protocol !

Abrams et al. IJROBP, 82, 809-816, 2012

Secondary analysis of RTOG 9704
Outcomes



Abrams et al. IJROBP, 82, 809-816, 2012

What happens when we deliver “bad” therapy?

BMJ 2016;353:i2139 doi: 10.1136/bmj.i2139 (Published 3 May 2016)

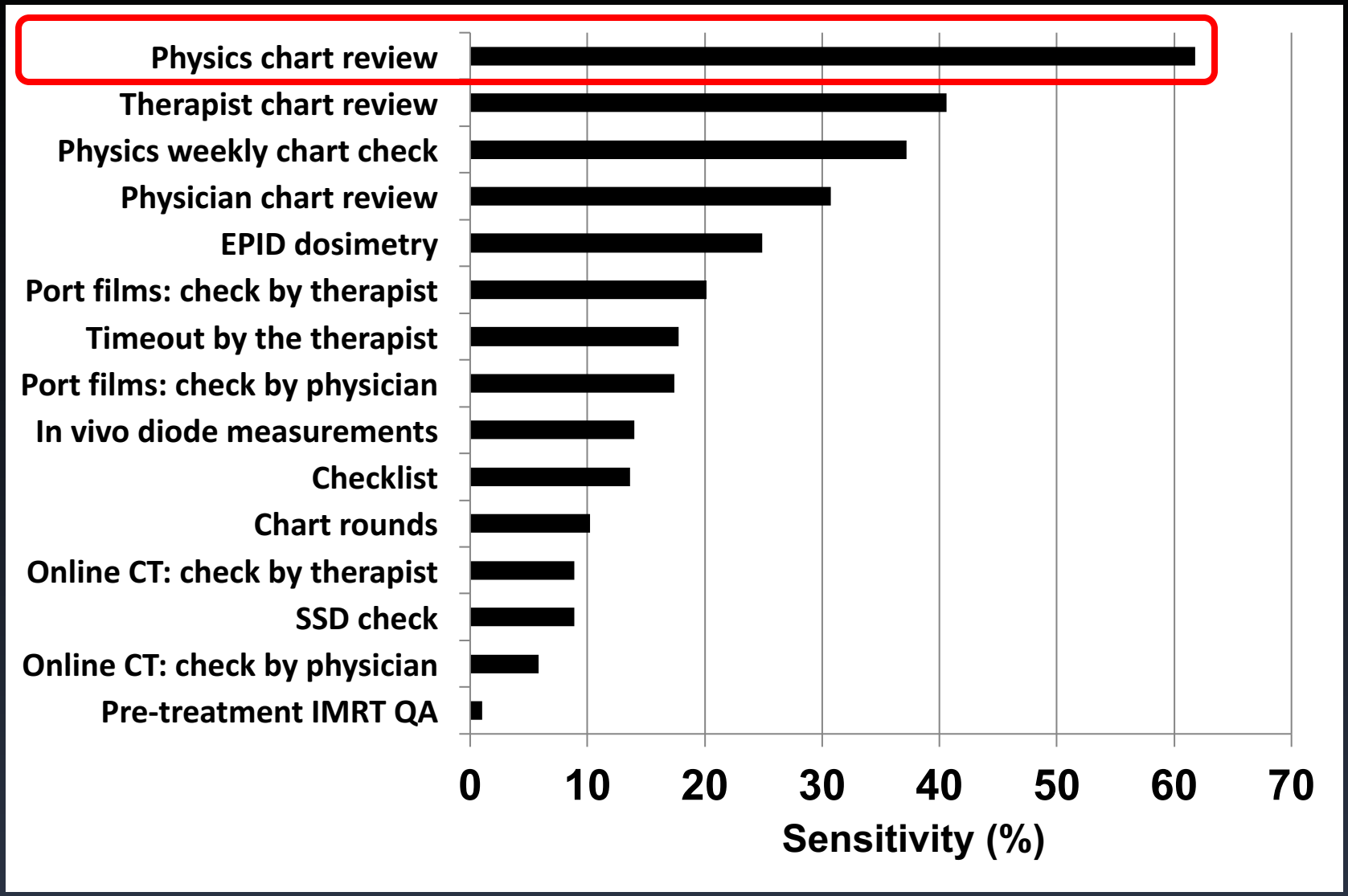
ANALYSIS

Medical error—the third leading cause of death in the US

Medical error is not included on death certificates or in rankings of cause of death. **Martin Makary** and **Michael Daniel** assess its contribution to mortality and call for better reporting

Martin A Makary *professor*, Michael Daniel *research fellow*

Department of Surgery, Johns Hopkins University School of Medicine, Baltimore, MD 21287, USA

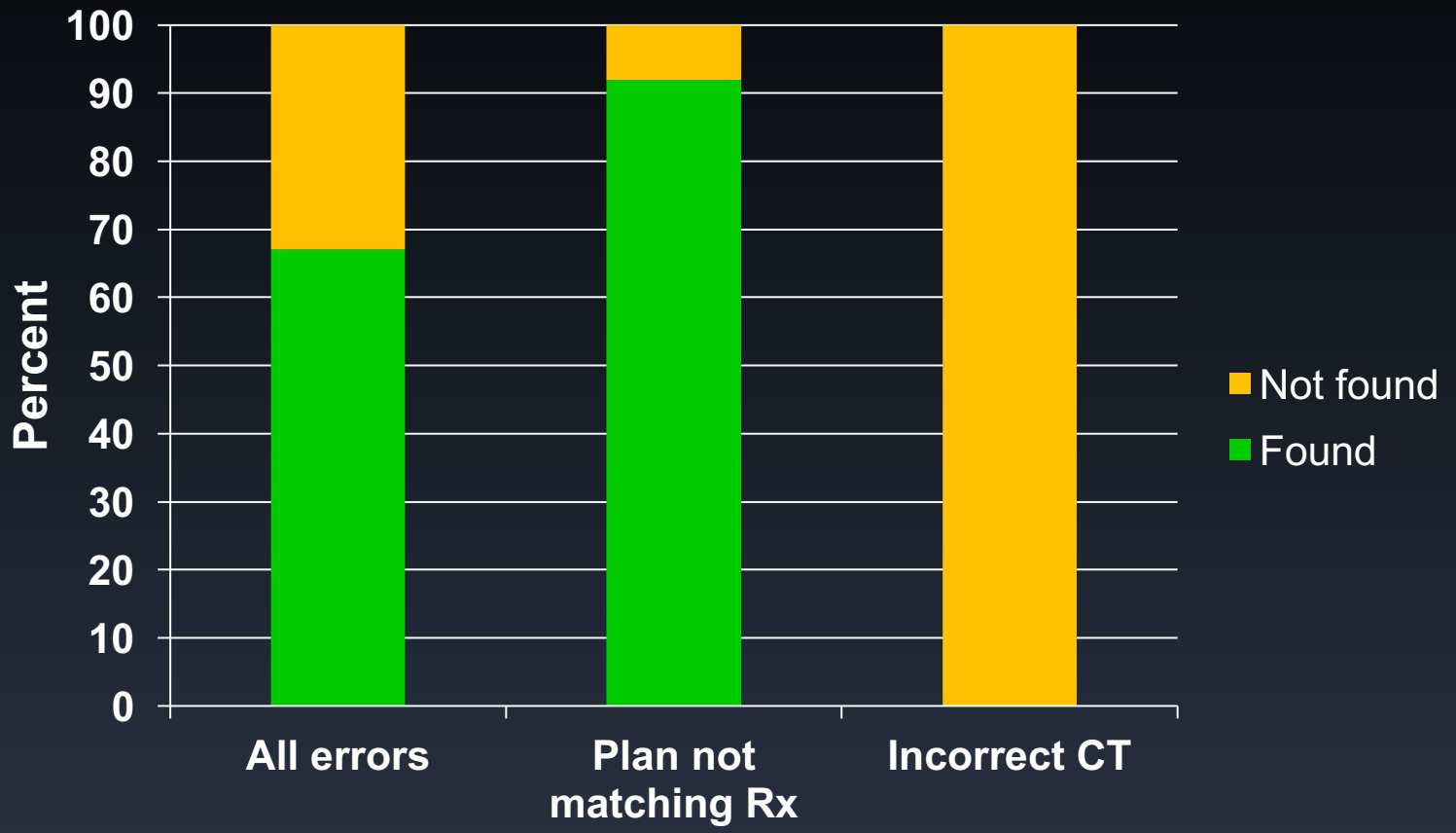


Ford et al. Int J Radiat Oncol Biol Phys, 84(3), e263-9 (2012)

Physics plan and chart review: potentially the best error traps, but …

in practice, it under performs

Results: Mock Plan Error Checks



Gopan, Ford et al. 2017

Guidance is lacking

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Task Group 275

Charge:

Provide recommendations for effective use of physics plan and chart review

- Initial
- Weekly
- End-of-treatment

- EBRT photons
- Proton therapy
- Brachytherapy

Timeline & Status: TG275

- Genesis: AAPM annual meeting 2014
- Approved as a Task Group: April 24, 2015
- Report complete: October 2017
- AAPM review complete: ??

Acknowledgments

- TG275 members
- Many, *many* participants who responded to surveys, helped with risk analysis
- Cast of thousands

Outline of this session

- A survey of physics plan review practices
  Deborah Schofield, MS

- Risk analysis to inform physics plan review recommendations
  Grace Gwe-Ya Kim, PhD

- Best practice recommendations from AAPM Task Group 275
  Luis Fong de los Santos, PhD