

Cancer overdiagnosis: Discussing our disagreements

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Today's talk

- What's the problem?
- What do we agree upon?
- What don't we agree upon?
- How can we work together?
- Concluding thoughts

What's the problem?

The problem

- Cancer overdiagnosis is not universally accepted
- Disagreements exist even among those researchers who agree that cancer overdiagnosis is a reality
- When we argue among ourselves, especially in public settings, it weakens our ability to influence the thoughts of others
 - Perceived inconsistency leads to disbelief

What do we agree upon?

Agreement

- There are some cancers that do not need to be diagnosed
- They do not need to be diagnosed because there can be no improvement in clinical outcomes
- Clinical outcomes include cancer and non-cancer outcomes

What don't we agree upon?

Two most important areas of disagreement

- No agreed-upon or consistently used definition of cancer overdiagnosis
- No agreed-upon or consistently used manner in which to measure and report the magnitude of overdiagnosis

The definition of cancer overdiagnosis

- Must overdiagnosed cancer be indolent?
 - What do we mean by the term indolent?
 - Competing causes of mortality
- Must overdiagnosed cancer be detected by way of screening?
 - What is screening?
 - What about serendipitously-detected cancer?

Measure and report of the magnitude of overdiagnosis

- Methodologies vary and produce different results
 - Modeling versus excess incidence
- Inconsistent calculation of numerator and denominator
 - Many “right” answers – depends on the question being asked
 - E.g., Inclusion of pre-invasive disease
- Fixed quantity (there is one true answer) vs one that depends upon...
 - Population characteristics (such as risk factor distribution), modality, diagnostic evaluation, other causes of mortality

Let's vote!

- Overdiagnosed cancer must be indolent
- Overdiagnosed cancer can only be detected because of screening
- When it comes to the magnitude of (breast, prostate, etc) cancer overdiagnosis, there is only one correct answer

How can we work together?

I believe that we should work together

- We all want the same thing
 - Increase awareness of cancer overdiagnosis
 - Better understand cancer overdiagnosis
 - Eliminate as much cancer overdiagnosis as we can
- We are more in agreement than disagreement

My proposal

- Establish a Preventing Overdiagnosis working group on cancer overdiagnosis
 - Discuss the disagreements
 - Identify common ground
 - Make recommendations for reporting practices
- Have not yet thought about specifics
- Thoughts?

Concluding thoughts

Why am I giving this talk?

- Cancer overdiagnosis is a tough topic
 - It lends itself to controversy and disagreement
- I've heard some nasty arguments and aggressive comments – the type that make me not want to speak up or contribute
 - Is this the exception or the rule?

Why are we here?

- We all want the same thing
- Scientific discourse can be fun!

Scientific discourse can be fun!

- Do you like thinking? I like thinking!
- Do you like challenges? I like challenges!

Two quotes

“Your assumptions are your windows on the world. Scrub them off every once in a while or the light won’t come in” – Asimov

“Disagreement is the mother of invention” - me

The end

Questions? Comments?