Guiding Principles for Developing Dietary Reference Intakes Based on Chronic Disease

Highlights of the Consensus Report
Released: August 3, 2017
Critically evaluated key scientific issues involved in using CD endpoints for setting DRIs
Provided options for whether and/or how CD endpoints can be used in the setting of DRI values.

Not a consensus report and not recommendations

The “Options Report” provided a foundation for developing guiding principles for basing DRIs on chronic disease endpoints

Guiding Principles Committee appointed in October, 2017

Members: Shiriki Kumanyika (Chair), Cheryl Anderson, Susan Barr, Kathryn Dewey, Gordon Guyatt, Janet King, Marian Neuhouser, Ross Prentice, Joseph Rodrigks, Patrick Stover, Katherine Tucker, Robert Wallace

Charge: To address the options for dealing with the challenges encountered when establishing DRIs for CD endpoints and to provide guidance to future DRI Committees for judging nutrients and other food substances (NOFSs) and CD risk.
### Traditional DRIs vs. DRIs for Chronic Disease

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<tr>
<th>Traditional DRIs</th>
<th>Chronic Disease DRIs</th>
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<td>DRIs for essential nutrients are needed because deficiencies:</td>
<td>Are not warranted unless sufficient evidence exists because:</td>
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<td>a) will affect everyone, if intake is inadequate</td>
<td>a) risk to acquire CDs varies by individual</td>
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<td>b) are caused by one nutrient</td>
<td>b) chronic diseases are often related to many risk factors (genetic, environmental)</td>
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<td>c) are prevented by nutritional interventions</td>
<td>c) nutritional interventions will only partly ameliorate the risk of CD</td>
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Relationship between a food substance and the risk of chronic disease is diverse.
1. How to *determine* whether specific levels of nutrients or other food substances (NOFSs) can ameliorate CD risk.

2. How to *develop DRIs* based on chronic disease outcomes.
SELECTING AND JUDGING THE CHRONIC DISEASE EVIDENCE

To identify the presence of CD: acceptable diagnostic criteria or surrogate biomarkers of the disease.

To judge the level of confidence b/w NOFS and CD: Use GRADE system; DRI\textsubscript{CD} should be based on at least moderate level of certainty.

To select indicators of the intake-response relationship: Use a single outcome indicator on the causal pathway.

How to extrapolation the intake-response data: Only to similar populations.
DRIs for CD Risk should be a range rather than a single number.

If an increased CD Risk only occurs above the traditional UL, no CD DRI is required because avoiding intakes above the UL will also avoid CD risk.

Explicit and transparent descriptions of health risk/benefit should be described when benefits and harms overlap.
Continue to use the current DRI process:
1. A thorough systematic review of a nutrient and CD will be done by the Agency for Healthcare Research & Quality on the causal relationship between a nutrient and CD.
2. Specific nutrient-focused DRI committees will determine if existing evidence is sufficient to support developing CD DRIs along with adequacy and toxicity DRIs.

May appoint a subcommittee to the parent committee that includes the different expertise needed to establish a CD DRI.
Sodium/potassium DRI review to be initiated in Fall, 2017

Steps for adding a CD evaluation:
1. A systematic review will be done by AHRQ of the evidence that causal a relationship exists between Na/K and a CD.

2. The DRI Committee, possibly with assistance of a subcommittee, will judge the evidence (using GRADE) and determine if the relationship between Na and a single CD outcome is causal in populations similar to those studied.

3. Establish an intake range where the Na-CD risk is minimal. If the Na-CD risk only occurs above the traditional Na UL, then no CD DRI will be set.

4. Repeat steps 2 and 3 for potassium and a CD, if indicated.
THANK YOU!

Questions?

Comments?