MOVING FROM EFFICACY TO EFFECTIVENESS & IMPLEMENTATION

Brenda Hemmelgarn MD PhD
University of Calgary
Alberta, CANADA
Disclosure of Interests

- Hoffman La-Roche – investigator initiated research grant
What do we know about dissemination and uptake of guidelines?

Steps: Awareness Agreement Adoption Adherence

% respondents

90-98% 67-70% 46-78% 30-35%
The need for improved uptake of the KDIGO glomerulonephritis guidelines into clinical practice in Canada: a survey of nephrologists

Sean Barbour\textsuperscript{1,2,3}, Monica Beaulieu\textsuperscript{1,2,3}, Jagbir Gill\textsuperscript{1,2,3}, Gabriela Espino-Hernandez\textsuperscript{2}, Heather N. Reich\textsuperscript{4} and Adeera Levin\textsuperscript{1,2,3}

Up to 45\% reported treatment strategies not in keeping with KDIGO GN guidelines
Evidence-practice gap

< 50% of Canadians receive appropriate preventative care

25% receive care that is unnecessary or harmful
KNOWLEDGE CREATION

- Identify Problem
- Identify, Review, Select Knowledge
- Knowledge Inquiry
- Synthesis
- Products/Tools
- Tailoring Knowledge

Select, Tailor, Implement Interventions
Assess Barriers/Facilitators to Knowledge Use
Adapt Knowledge to Local Context
Evaluate Outcomes
Sustain Knowledge Use

Straus & Graham. CMAJ 2009;181:165
Step 1: Identify evidence-practice gap

Management of CKD in primary care
Step 2: Adapt CPG for local use

ADAPTE process (www.adapte.org)

- int’l collaboration aimed at facilitating efficient, high quality adapted CPG

- learning modules + tools available

Management of CKD in primary care
Summary of the ADAPTE process

<table>
<thead>
<tr>
<th>PHASES</th>
<th>TASKS</th>
<th>ASSOCIATED MODULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Up Phase</td>
<td>PREPARE FOR ADAPTE PROCESS</td>
<td>Preparation</td>
</tr>
<tr>
<td></td>
<td>DEFINE HEALTH QUESTIONS</td>
<td>Scope and Purpose</td>
</tr>
<tr>
<td></td>
<td>SEARCH AND SCREEN GUIDELINES</td>
<td>Search and Screen</td>
</tr>
<tr>
<td></td>
<td>ASSESS GUIDELINES</td>
<td>Assessment</td>
</tr>
<tr>
<td></td>
<td>DECIDE AND SELECT</td>
<td>Decision and Selection</td>
</tr>
<tr>
<td></td>
<td>DRAFT GUIDELINE REPORT</td>
<td>Customization</td>
</tr>
<tr>
<td>Finalization Phase</td>
<td>EXTERNAL REVIEW</td>
<td>External Review</td>
</tr>
<tr>
<td></td>
<td>PLAN FOR FUTURE REVIEW AND UPDATE</td>
<td>Aftercare planning</td>
</tr>
<tr>
<td></td>
<td>PRODUCE FINAL GUIDELINE</td>
<td>Final Production</td>
</tr>
</tbody>
</table>

KDIGO Diabetes Conference | February 5-8, 2015 | Vancouver, Canada

www.adapte.org
Step 3: Assess barriers to uptake

CPG Framework for Improvement
- structured framework for identifying, describing and removing barriers to CPG implementation
- (barrier = reverse facilitator)

Management of CKD in primary care
Multiple barriers block translation of evidence into practice

**The Provider**
- Lack of motivation/clinical inertia
- Lack of awareness or knowledge of the evidence
- Disagreement with the intervention
- Lack of self-efficacy
- Overemphasis on potential side effects
- Competing promotional influences

**The Patient**
- Preferences/expectations/knowledge
- Patient adherence
- Competing promotional influences

**The Setting/System**
- Access to health care
- Affordability (for the individual and the system)
- Emphasis on acute symptoms rather than prevention
- Lack of time or resources
- Lack of incentives to change
- Lack of opinion leaders
- Competing promotional influences

Majumdar et al, JACC 2004;43:1738-42
### Patient-level Barriers

- Pa#ent-level Barriers
- Physician-level Barriers
- Health System-level Barriers

### Physician-level Facilitators

### Health System-level Facilitators

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### A PATIENT SURVEY TO UNDERSTAND KIDNEY DISEASE AND ITS MANAGEMENT

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Poor</th>
<th>Satisfactory</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. First 3 digits of your postal code: ___ ___ ___</td>
<td></td>
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<tr>
<td>2. Age: □ Under 50 years □ 65-74 years □ 50-64 years □ 75 years and older</td>
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<tr>
<td>3. Do you have diabetes? □ Yes □ No □ Not sure</td>
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<tr>
<td><strong>Understanding of kidney disease</strong></td>
<td></td>
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<tr>
<td>4. Have you ever been told you have kidney disease? □ Yes □ No □ Not sure</td>
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<tr>
<td>5. Have you ever had a blood test (serum creatinine) to check your kidney function? □ Yes □ No □ Not sure</td>
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<tr>
<td>6. Have you ever had your urine tested for protein? □ Yes □ No □ Not sure</td>
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<tr>
<td>7. If yes, was the protein in your urine higher than normal? □ Yes □ No</td>
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</tr>
<tr>
<td>8. Do you feel that you have enough information to help you manage your kidney disease? □ Yes, definitely □ Yes, somewhat □ No, I need more information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Care for kidney disease</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. How easy is it for you to make an appointment to see your doctor or healthcare provider? □ Very easy □ Easy □ Difficult □ Very difficult</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10. Would it be a problem for you to have your urine tested at a laboratory every 6-12 months? □ Yes □ No</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>If yes, what are some of the problems you might face? Tick all that apply.</strong></td>
<td></td>
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</tr>
<tr>
<td>□ I don’t know where the nearest lab is</td>
<td></td>
<td></td>
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<tr>
<td>□ The lab hours are not convenient for me</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Distance – too long to travel to nearest lab</td>
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<td></td>
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<tr>
<td>□ Travel to lab – don’t have a car (would need to take public transit, cab, arrange for a ride, etc)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>□ I have to wait too long at the lab</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>□ Other (specify):</td>
<td></td>
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</tr>
</tbody>
</table>

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**Cost**

- 13. Do you have a drug plan that covers all or part of the cost of drugs needed for your treatment? □ Yes □ No

**Management of kidney disease**

- 15. How satisfied are you with the level of information your health team shares with you about your kidney disease? □ Very satisfied □ Satisfied □ Unsatisfied □ Very unsatisfied
- 16. Do you feel that you have adequate access to your own health information (for example lab test)? □ Strongly agree □ Agree □ Disagree □ Strongly disagree

Circle one for each of the following 2 questions:

17. How would you rate your understanding of...?

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**Survey**

- 12. How satisfied are you with the service provided to you when you go to the laboratory? □ Very satisfied □ Satisfied □ Unsatisfied □ Very unsatisfied

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- April 1, 2013
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Step 4: Design an intervention

Cochrane Effective Practice and Organization of Care (EPOC) group
- international network focusing on interventions that improve the delivery, practice and organization of health care services

Rx for Change Database:
http://www.cadth.ca/en/resources/rx-for-change/database/intervention
Direct vs mediated interventions:

**KT intervention** targeted to:

- **Patient**
- **Provider**

Intent to influence:

- **Direct**
  - Pt knowledge, skills, behavior, and/or health outcomes
- **Mediated**
  - Provider knowledge, skills, and/or behavior
Examples of patient-direct & patient-mediated interventions

**Patient-direct:**
- Educational materials
- Mass media campaigns
- Patient decision aids
- Self-monitoring
- Enhancing adherence
- Electronic interventions (eHealth)

**Patient-mediated:**
- Question cards to prompt asking questions
- Patient decision aids
- Patients providing reports to providers
- Patients reporting results to providers (BP, A1c)
<table>
<thead>
<tr>
<th>Resource Intensity</th>
<th>Electronic Medical Record Related Interventions</th>
<th>Education Related Interventions</th>
<th>Personnel-Based Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Electronic Medical Record</td>
<td>Clinician Education</td>
<td>Team Changes</td>
</tr>
<tr>
<td></td>
<td>Patient Reminders</td>
<td>Patient Education</td>
<td>Case Management</td>
</tr>
<tr>
<td></td>
<td>Clinician Reminders</td>
<td>Promotion of Self-Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Audit and Feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Facilitated Relay of Patient Data</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2.** Relationship between resource intensity and common chronic disease management interventions.

AJKD 2012;60:133-138
QI Strategies and glycaemic control

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Number of trials</th>
<th>Mean difference (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of self-management</td>
<td>60</td>
<td>0.57 (0.31 to 0.83)</td>
</tr>
<tr>
<td>Team changes</td>
<td>48</td>
<td>0.57 (0.42 to 0.71)</td>
</tr>
<tr>
<td>Case management</td>
<td>57</td>
<td>0.50 (0.36 to 0.65)</td>
</tr>
<tr>
<td>Patient education</td>
<td>52</td>
<td>0.48 (0.34 to 0.61)</td>
</tr>
<tr>
<td>Facilitated relay</td>
<td>32</td>
<td>0.46 (0.33 to 0.60)</td>
</tr>
<tr>
<td>Electronic patient register</td>
<td>27</td>
<td>0.42 (0.24 to 0.61)</td>
</tr>
<tr>
<td>Patient reminders</td>
<td>21</td>
<td>0.39 (0.12 to 0.65)</td>
</tr>
<tr>
<td>Audit and feedback</td>
<td>8</td>
<td>0.26 (0.08 to 0.44)</td>
</tr>
<tr>
<td>Clinician education</td>
<td>15</td>
<td>0.19 (0.03 to 0.35)</td>
</tr>
<tr>
<td>Clinician reminders</td>
<td>18</td>
<td>0.16 (0.02 to 0.31)</td>
</tr>
<tr>
<td>Financial incentives</td>
<td>1</td>
<td>0.10 (-0.24 to 0.44)</td>
</tr>
<tr>
<td>Continuous quality improvements</td>
<td>2</td>
<td>-0.23 (-0.41 to -0.05)</td>
</tr>
<tr>
<td>All interventions</td>
<td>120</td>
<td>0.37 (0.28 to 0.45)</td>
</tr>
</tbody>
</table>

Post-intervention reduction in HbA₁c (%)
Designing an intervention

Planning Meeting with Stakeholders and End-Users
May 2, 2012

AGENDA:
To develop innovative strategies for the implementation of CKD guidelines
Clinical Pathway

Why a clinical pathway?

• Coordination & continuity of care enhanced
• Increase clinic efficiency
• Improve patient safety

www.CKDpathway.ca
Steps 5 & 6: Monitor use & evaluate outcomes

Management of CKD in primary care

Monitor & Evaluate Outcomes:
- Cluster RCT
- Stepped-wedge RCT
- Time-series
Does the CKD pathway implemented as a Web-based tool improve outcomes?

- Info sheet (mail and fax broadcast to all GPs)
- Lab prompt reminder
- Endorsement through key stakeholders / champions
- CME
Step 7: Sustain knowledge use

Factors to consider:
- Health needs & benefits
- Adaptability / alignment of the intervention
- Resources & leadership
- Stakeholder support

Management of CKD in primary care
It takes ~17 years to get evidence into practice

Demonstrate it works (efficacy)
Show it works in clinical practice (effectiveness / implementation)
Keep it working (sustainability)
Spread it system-wide (scalability)
Summary:

Dissemination and uptake of CPGs are poor

The Knowledge-to-Action cycle can be used as a framework to implement knowledge into practice
Thank you!