Barriers to Implementing Recommendations in LMICs

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Clinical Practice Guidelines

Systematically developed statements, to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances
Guidelines do not implement themselves
Change management

We must remember that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its outcome than to take the lead in introducing a new order of things.

Because the innovator has for enemies all those who have done well under the old order, and lukewarm defenders among those who may do well out of the new.

Machiavelli, The Prince

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The Beckhard-Harris Change Model

*conditions necessary for change to occur*

- **D**: Dissatisfaction with the present (pain)
- **V**: Vision for change
- **F**: First Steps
- **R**: Resistance to change

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DVF at two levels

<table>
<thead>
<tr>
<th>Requirements for System Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfaction</td>
</tr>
<tr>
<td>Acceptance of the need for organizational change</td>
</tr>
<tr>
<td>Understanding and acceptance of where the organization is headed</td>
</tr>
<tr>
<td>Understanding and acceptance of the plan for achieving the vision</td>
</tr>
<tr>
<td>First Steps</td>
</tr>
<tr>
<td>Understanding and acceptance of specific steps s/he must take to adopt new roles and behaviours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirements for Personal Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

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Barriers to implementation

Internal
related to the guideline itself

External
related to the clinical environment and particular local circumstances
Internal Barriers

- Ethnic and genetic variations
  - HIVAN
  - Disease behavior in different races/ethnicities
- Differences in disease characteristics
  - Differences in CKD causes
  - Proteinuric v non-proteinuric diseases
External barriers

• Structural factors
  – financial disincentives

• Organizational factors
  – inappropriate skill mix
  – lack of facilities or equipment

• Peer group
  – local standards of care not in line with desired practice

• Individual factors
  – knowledge attitudes, skills

• Professional - patient interaction
  – problems with information processing.
## Regional variations in health status

<table>
<thead>
<tr>
<th>Life expectancy</th>
<th>Asian countries</th>
<th>Chinese province</th>
<th>Indian state</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;80</td>
<td>Japan, Korea, Singapore, Australia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75 – 79.9</td>
<td>Malaysia, Vietnam, Sri Lanka</td>
<td>Shanghai, Beijing</td>
<td>Kerala</td>
</tr>
<tr>
<td>70 – 74.9</td>
<td>Philippines, Thailand, Indonesia, Bangla Desh</td>
<td>Zhejiang, 20 others</td>
<td>Punjab</td>
</tr>
<tr>
<td>65 – 69.9</td>
<td>Laos, Myanmar, Pakistan</td>
<td>Inner Mongolia, 6 others</td>
<td>Maharashtra, 5 others</td>
</tr>
<tr>
<td>60 – 64.9</td>
<td></td>
<td>Tibet</td>
<td>AP, 7 others</td>
</tr>
</tbody>
</table>
GNP and Nephrology Care Availability in Indian States

![Graph showing the relationship between Per capita GNP (US$) and Nephrology units per million population (pmp). The x-axis represents Per capita GNP (US$) ranging from 50 to 550, and the y-axis represents Nephrology units pmp ranging from 0 to 2. The graph includes red data points indicating the availability of nephrology care across different levels of GNP.](image-url)
## Socioeconomic status and values of key health determinants

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Poor</th>
<th>Middle class</th>
<th>Affluent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Poor</strong></td>
<td>Did you have enough?</td>
<td>Did you like it?</td>
<td>Was it presented well?</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>Valued but abstract</td>
<td>Crucial for success and making money</td>
<td>Necessary for making and keeping connections</td>
</tr>
<tr>
<td><strong>Destiny</strong></td>
<td>Fate</td>
<td>Choices</td>
<td>Noblesse oblige</td>
</tr>
<tr>
<td><strong>Worldview</strong></td>
<td>Local</td>
<td>National</td>
<td>International</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>For survival</td>
<td>For negotiation</td>
<td>About networking</td>
</tr>
<tr>
<td><strong>Importance</strong></td>
<td>Present</td>
<td>Future</td>
<td>Tradition</td>
</tr>
<tr>
<td><strong>Decision</strong></td>
<td>For the moment, survival-based</td>
<td>For future ramifications</td>
<td>On basis of tradition and decorum</td>
</tr>
</tbody>
</table>
Implementation of guidelines is a local responsibility
Concerns

• ....no one checks your work........
• ....if a legal problem emerges, they will complain....the board will not accept a guideline.....
• .....most people pay out of pocket.....how can I prescribe the expensive recommendation?
• ....insurance companies are short of scientific manpower....... 
• .....physicians have overwhelming workload.....
Cultural issues...

- .....we do not pay attention to detail....
- .....I know this. there is no need of any guideline......
- .....Experience is better than guidelines
- ....patient asks you for a specific medication. if you resist, they will go elsewhere....You are swimming against the tide....
- ....our resources are at a level where expert view is more valuable than evidence.....
- .....these guidelines were nor developed for Indian subjects...
**Lack of evidence based stewardship**

- ....we do not have a system....for guideline generation ...implementation
- ....this topic has never been a serious concern....
- ....we have never been taught to think in terms of guidelines...
- ....we have lived and worked so far without guidelines, why do we need them now?....
- .....but the rep of xxxx firm told me this is better...
Professional and political issues

• our physicians.....they don't know.....are not aware of their negligence

• .....do not have skills for finding articles and appraisal...

• ....there are no regulations, the government is not bothered about standardising medical care....

• ....unless those in most important positions believe...nothing will happen....
Patient issues

• ......The patient cannot come back again and again....
• ......I have seen this over the internet....
• ......If I do not prescribe anything, he will not return to me....
How can a “central organization” help?

Early and continuous stakeholder engagement

Implementation plan

Audit

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How can a “central organization” help?

Wide dissemination of GL at no cost to practitioner

Awareness raising initiatives

Electronic publishing to improve GL availability

Use of mass media
## Effectiveness of interventions to promote implementation

<table>
<thead>
<tr>
<th>Variable effectiveness</th>
<th>Largely effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit and feedback</td>
<td>Reminders</td>
</tr>
<tr>
<td>Local consensus conferences</td>
<td>Educational outreach (for prescribing)</td>
</tr>
<tr>
<td>Opinion leader</td>
<td>Interactive educational workshops</td>
</tr>
<tr>
<td>Patient mediated interventions</td>
<td>Multi-faceted interventions</td>
</tr>
</tbody>
</table>

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Guideline and audit cycles

Evaluation

Implementation

Dissemination

Development

Guidelines

Research and development

Clinical audit

Education

Standard setting/service accreditation
Practical steps

• Prioritize topics
  – Clinical teams can only tackle one guideline at a time

• Identify strengths and weaknesses of present provision

• Do not choose areas that are most easily implementable

• Monitor
Decide leader, stakeholder

Prepare people/environment for GL implementation
  • Account for pt preferences/views

Determine current position
  • Review local environment
  • Audit current practices
  • Identify gaps

Decide on appropriate implementation techniques
  • with respect to barriers

Action plan
  • putting it together

Evaluate process
  • Audit
  • Reward
  • Modify

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Indian commentary on the 2009 KDIGO clinical practice guideline for the diagnosis, evaluation, and treatment of chronic kidney disease-mineral and bone disorders

V. Jha, V. Kher¹, R. Pisharody², R. K. Sharma³, G. Abraham⁴, Gokulnath⁵, A. Almeida⁶, A. Gupta³

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Special Feature

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Provide perspective

The purpose of this commentary is not to critique the recommendations given by KDIGO but to understand and arrive at a consensus about its application in India. The members of the panel have used their clinical experience and expertise in the subject to examine the KDIGO recommendations that have been derived after a rigorously performed evidence review. The panel recognized that by and large, the biological and clinical behavior of patients is likely to be similar around the world and hence the derived guidelines and the science behind it would apply for the management of abnormalities in CKD-MBD in Indian patients as well. There was no additional
Develop consensus

By consensus, the following were considered to be reasonable monitoring intervals:

- CKD Stage 3: Serum calcium and phosphorous every 3 months; PTH optional.
- CKD Stage 4: Serum calcium and phosphorous every 3 months; PTH once in 12 months unless clinical indications for more frequent estimation arise.
- CKD Stage 5: Serum calcium and phosphorous every month; PTH every 3-6 months.
- CKD Stages 4-5D: Total alkaline phosphatase every 3-6 months in Stage 4 and every 3 months in Stage 5.

With respect to vitamin D, the consensus was that a baseline value can be obtained and repeated once in 12 months in all stages of CKD.
Gaps identified, solutions suggested

There is widespread ignorance about the impact of the methodological issues on PTH assays. Proper collection, storage and transport conditions must be ensured. Samples need to be collected properly (in prechilled tubes), and transported on ice (especially important during summer and monsoon months). This is often not implemented.

Although bone biopsy is the best test to confirm bone disorders in CKD-MBD, it is currently not feasible, since there is an extreme paucity of centers that can perform this test and interpret it appropriately according to the guidelines. Incidentally, the use of bone biopsy is limited in the industrially advanced nations also and is mostly done for research purposes. Indian clinicians and researchers need to develop this capability. Finally, there are no
Be practical

amongst Indian CKD patients. The A lateral abdominal radiograph can be easily obtained at most places and is cheap, but an echocardiogram is not as widely available and is relatively expensive. The former can therefore be routinely performed and the latter whenever possible. It is unclear, however, as to how this will change patient management. One suggestion is to not use calcium-containing phosphate binders in those with calcification.

It is important to follow proper methodology, which includes proper patient preparation, use of optimized exposure settings and an experienced reader. These tests could be repeated once every year to detect progression.
Emphasize the less well understood points

Given the low awareness of the significance of dialysate calcium, it is important to emphasize the KDIGO guideline that calcium is useful. There is a tendency of starting activated vitamin D therapy in incompletely worked up CKD subjects, and this practice needs to be resisted. However, if serum PTH is progressively rising and remains persistently above the baseline, it may be an indicator of the need for increased vitamin D supplementation. 

Recommendation 5.3 is important because vitamin D levels are low in our patient population and early detection would help in early initiation of treatment.\(^{[11]}\) Recommendation 5.5 is especially relevant in postmenopausal women or patients with diabetes mellitus. Caution should be exercised while prescribing bisphosphonates to avoid low turnover bone disease. The pretransplant bone
Upcoming challenges: manpower shortage

- Bangladesh
- Myanmar
- Indonesia
- Sri Lanka
- Nepal
- India
- Pakistan
- Vietnam
- Malaysia
- Philippines
- Thailand

Jha, Semin Nephrol 2009
Labor Productivity

If developing world uses current models, there will never be enough trained personnel for rising demand
He who neglects what is done for what ought to be done, sooner effects his ruin than his preservation.