



# **KDIGO Overview**

**Bertram Kasiske, MD**

**Mandaluyong City**

**April 23, 2014**

# KDIGO Overview

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- What is KDIGO?
- What is a clinical practice guideline?
- How does KDIGO produce guidelines and conferences?
- How are we doing (results of a survey)?

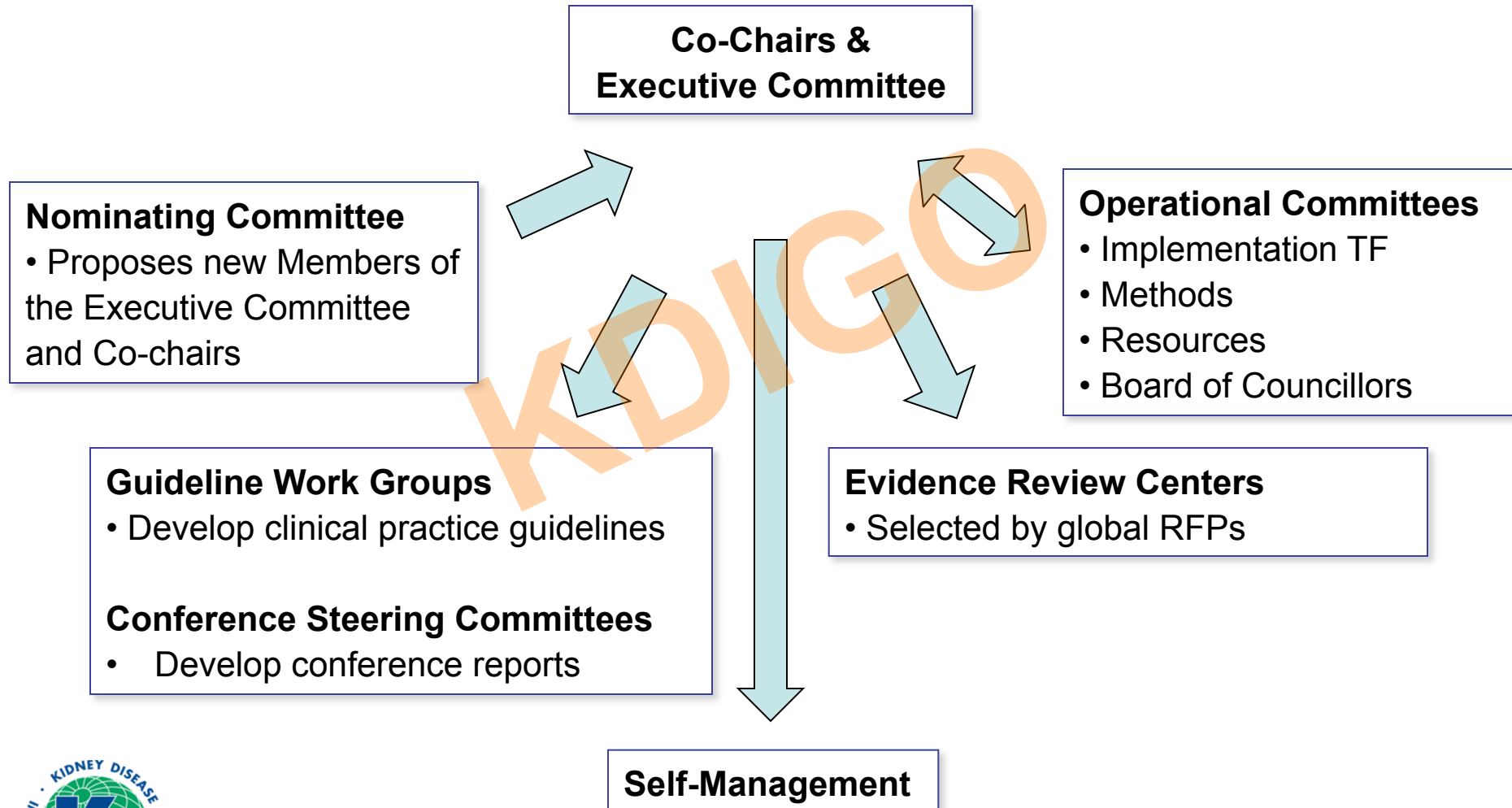


# An independent entity

Kidney Disease: Improving Global Outcomes (KDIGO) was founded in 2003 and incorporated in Belgium as a foundation in the public interest. After almost 10 years of stellar management by the US National Kidney Foundation, on October 1, 2012, KDIGO became a wholly independent and truly global organization, committed to improving outcomes for patients with kidney disease worldwide.



# KDIGO governance





# KDIGO leadership

**Co-chairs:** Bertram Kasiske *USA*  
David Wheeler *UK*

**Exec Committee:** Josef Coresh *USA*  
Angel de Francisco *Spain*  
Kai-Uwe Eckardt *Germany*  
Michel Jadoul *Belgium*  
Saraladevi Naicker *South Africa*  
Gregorio Obrador *Mexico*  
Yusuke Tsukamoto *Japan*  
Christoph Wanner *Germany*  
Helena Zakharova *Russia*

**Treasurer:** Nathan Levin *USA*

**Staff:** John Davis, CEO  
Danielle Green, Managing Dir  
Michael Cheung, Chief Science Officer  
Tanya Green, Communications Dir



# The KDIGO mission

Improving the care and outcomes of kidney disease patients worldwide through the development and implementation of global clinical practice guidelines.



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# KDIGO Overview

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# What is a clinical practice guideline?

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The term “practice guideline” likely came from the mountain climbing practice of marking best paths with rope.

Stone JA, et al. *Can J Cardiol.* 2008;24(10):753





# Institute of Medicine definition

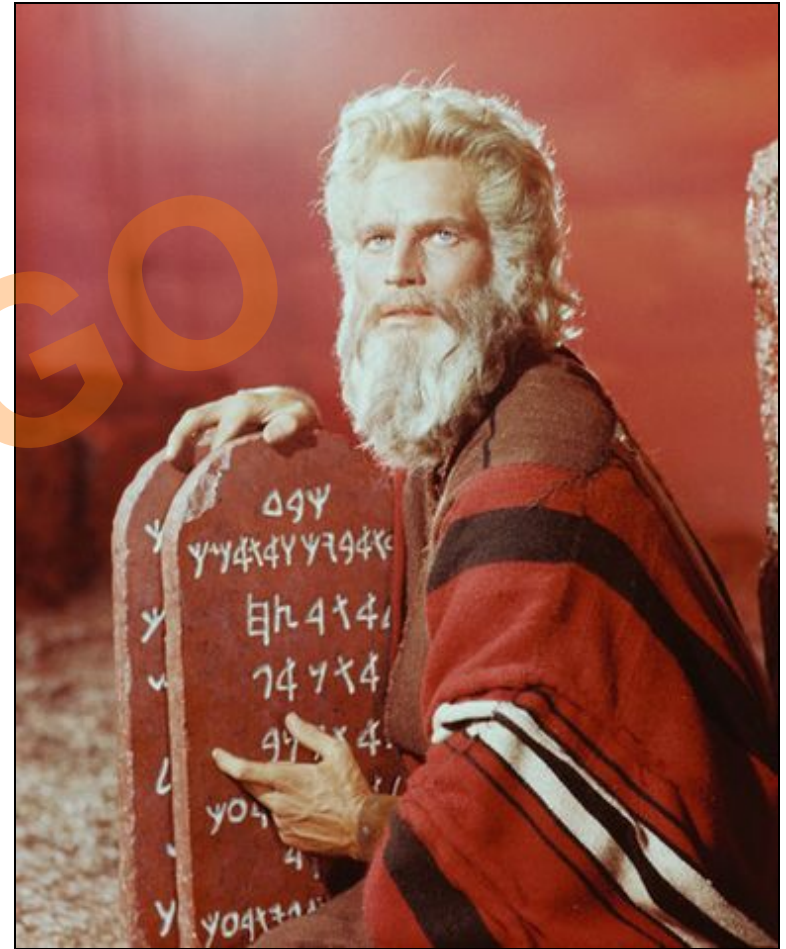
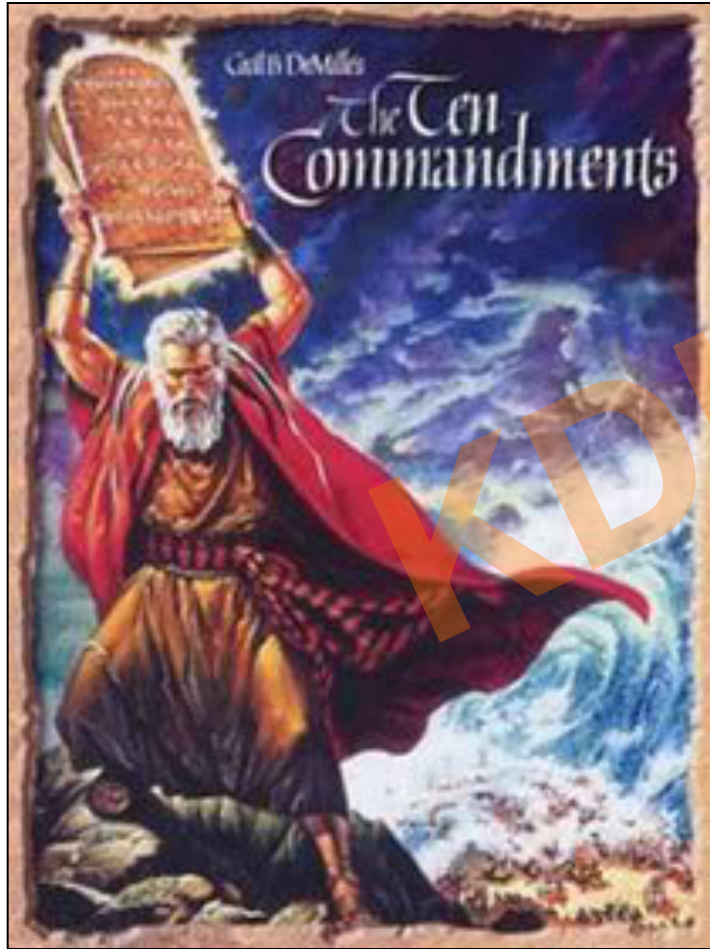
1990: “systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances”

2011: “statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options.”

Institute of Medicine. *Clinical Practice Guidelines We Can Trust*. 2011.  
<http://www.iom.edu/Reports/2011>



# Guidelines are not ...



# Reasons for guidelines

The volume of evidence is too great for clinicians to know.

Clinicians cannot be expected to judge study quality.

Disclosing the lack of evidence can stimulate research.



# Guidelines should be trustworthy!

## Resources

REPORT BRIEF  MARCH 2011

INSTITUTE OF MEDICINE  
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

For more information visit [www.iom.edu/cpgstandards](http://www.iom.edu/cpgstandards)

## Clinical Practice Guidelines We Can Trust



CLINICAL PRACTICE  
GUIDELINES  
WE CAN TRUST

INSTITUTE OF MEDICINE  
OF THE NATIONAL ACADEMIES



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# Eight IOM standards for developing trustworthy guidelines

- Establishing Transparency
- Management of Conflict of Interest
- Guideline Development Group Composition
- Clinical Practice Guideline–Systematic Review Intersection
- Establishing Evidence Foundations for and Rating Strength of Recommendations
- Articulation of Recommendations
- External Review
- Updating



Institute of Medicine. *Clinical Practice Guidelines We Can Trust*. 2011.  
<http://www.iom.edu/Reports/2011/Clinical-Practice-Guidelines-We-Can-Trust.aspx>

# Guidelines should

- be based on a **systematic review** of the existing evidence;
- be developed by a knowledgeable, **multidisciplinary panel** of experts and representatives from key affected groups;
- consider important patient **subgroups and patient preferences**, as appropriate;
- be based on an explicit and **transparent** process that minimizes distortions, biases, and conflicts of interest;
- provide a clear **explanation** of the logical relationships between alternative care options and health outcomes, and provide ratings of both the **quality of evidence and the strength** of the recommendations; and
- be **reconsidered and revised** as appropriate when important new evidence warrants modifications of recommendations.



Institute of Medicine. *Clinical Practice Guidelines We Can Trust*. 2011.  
<http://www.iom.edu/Reports/2011/Clinical-Practice-Guidelines-We-Can-Trust.aspx>

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# KDIGO adheres to IOM standards for trustworthy guidelines

## Resources

- The need for a guideline originates from stakeholders.
- Public comment is sought.
- Work Group members include adequate domain expertise, stakeholder and international representation.
- An independent Evidence Review Team is used.



# Grading the quality of the evidence and the strength of recommendations

- 2 components of final grade → granularity and transparency
- Evidence quality influences, but does not dictate the strength of a recommendation
- “Neutral” alphanumeric code

Quality of evidence	High	A	Strength of recommendation	1	Corresponds to “strong” in GRADE
	Moderate	B		2	Corresponds to “weak” in GRADE
	Low	C			
	Very low	D			

e.g. (**Grade 1C**) or (**Grade 2D**) ... 8 options

Option to include statements that are not graded



# Dealing with conflicts of interest

Clinical practice guidelines influence physician practice, quality measures, and insurance coverage decisions. Given this influence, clinical practice guidelines need to be developed with greater transparency and accountability. The committee recommends that professional societies and other groups that develop practice guidelines not accept direct industry funding for guideline development and generally exclude individuals with conflicts of interest from the panels that draft the guidelines. In addition, these groups should make public their conflict of interest policies, their funding sources, and any financial relationships panel members have with industry.

<http://www.iom.edu/Reports/2009/Conflict-of-Interest-in-Medical-Research-Education-and-Practice.aspx>



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April 21, 2009

# KDIGO adheres to IOM standards for trustworthy guidelines

## Resources

- The need for a guideline originates from stakeholders.
- Public comment is sought.
- Work Group members include adequate domain expertise, stakeholder and international representation.
- An independent Evidence Review Team is used.
- Conflicts of interest are managed.
- No direct, single-industry sponsorship of a guideline.



# KDIGO Overview

- What is KDIGO?
- What is a clinical practice guideline?
- How does KDIGO produce guidelines and conferences?
- How are we doing (results of a survey)?



# Core KDIGO guideline lifecycle





# Controversies Conferences

**Controversies  
Conferences**

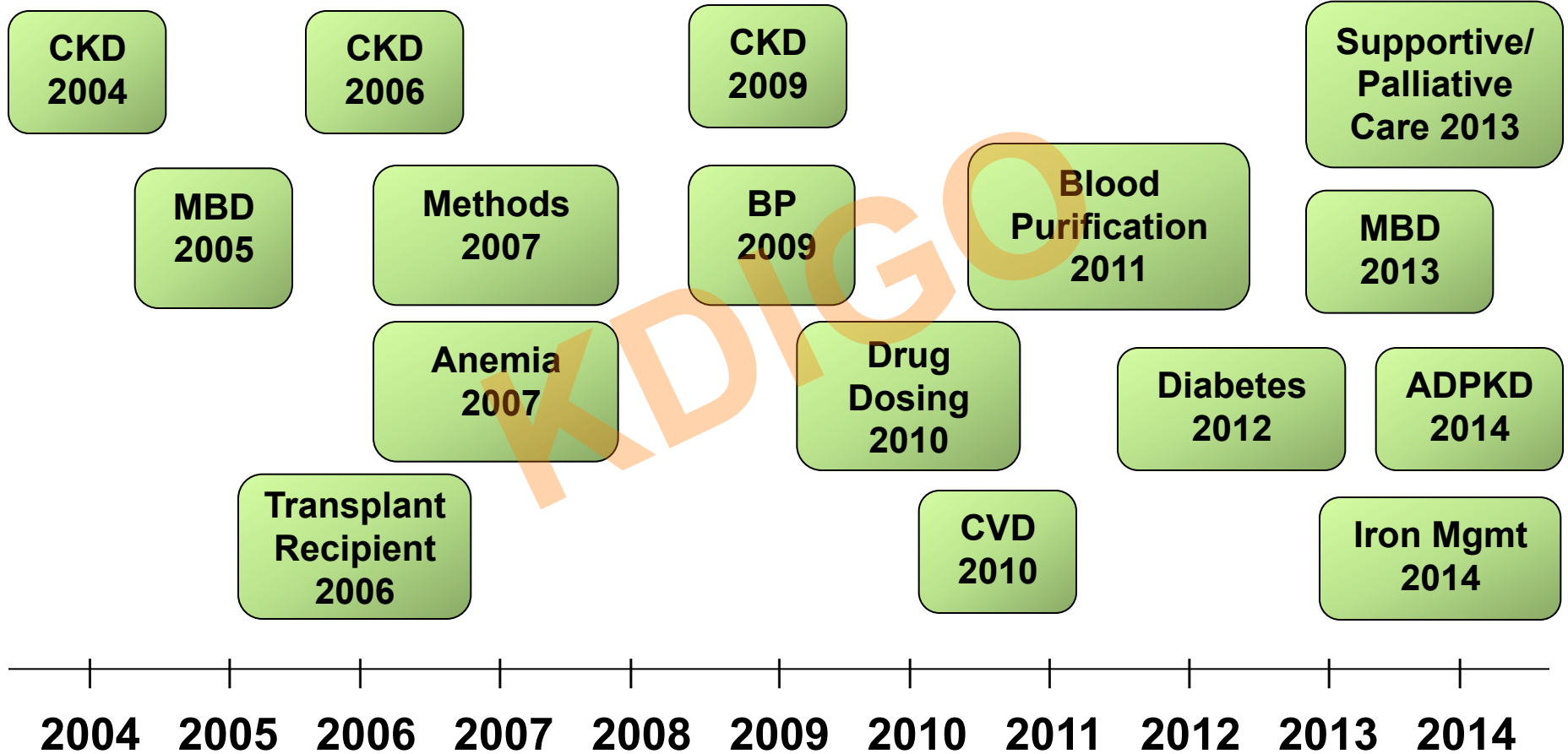
**Controversies Conferences** examine significant nephrology topics that result in a published position paper to share with the community

**Clinical Practice  
Conferences**

**Implementation  
Task Force**



# Controversies Conferences



# Impact of Controversies Conferences

## New Terminology

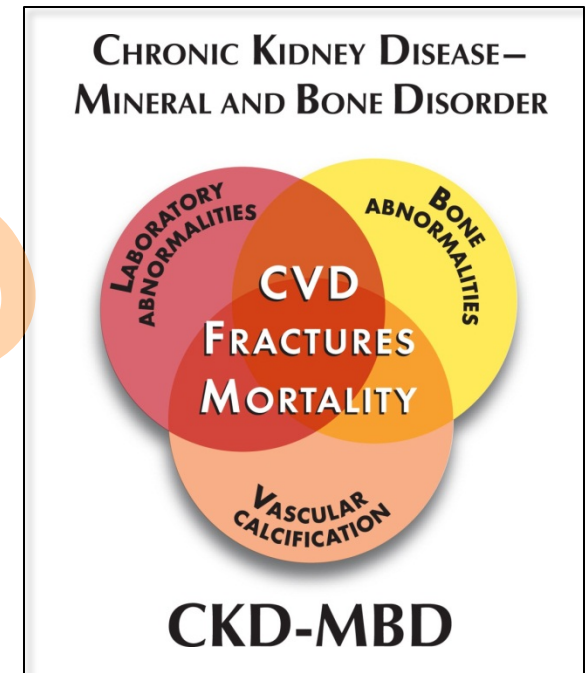
- NKF-K/DOQI definition of CKD

## WHO Collaboration

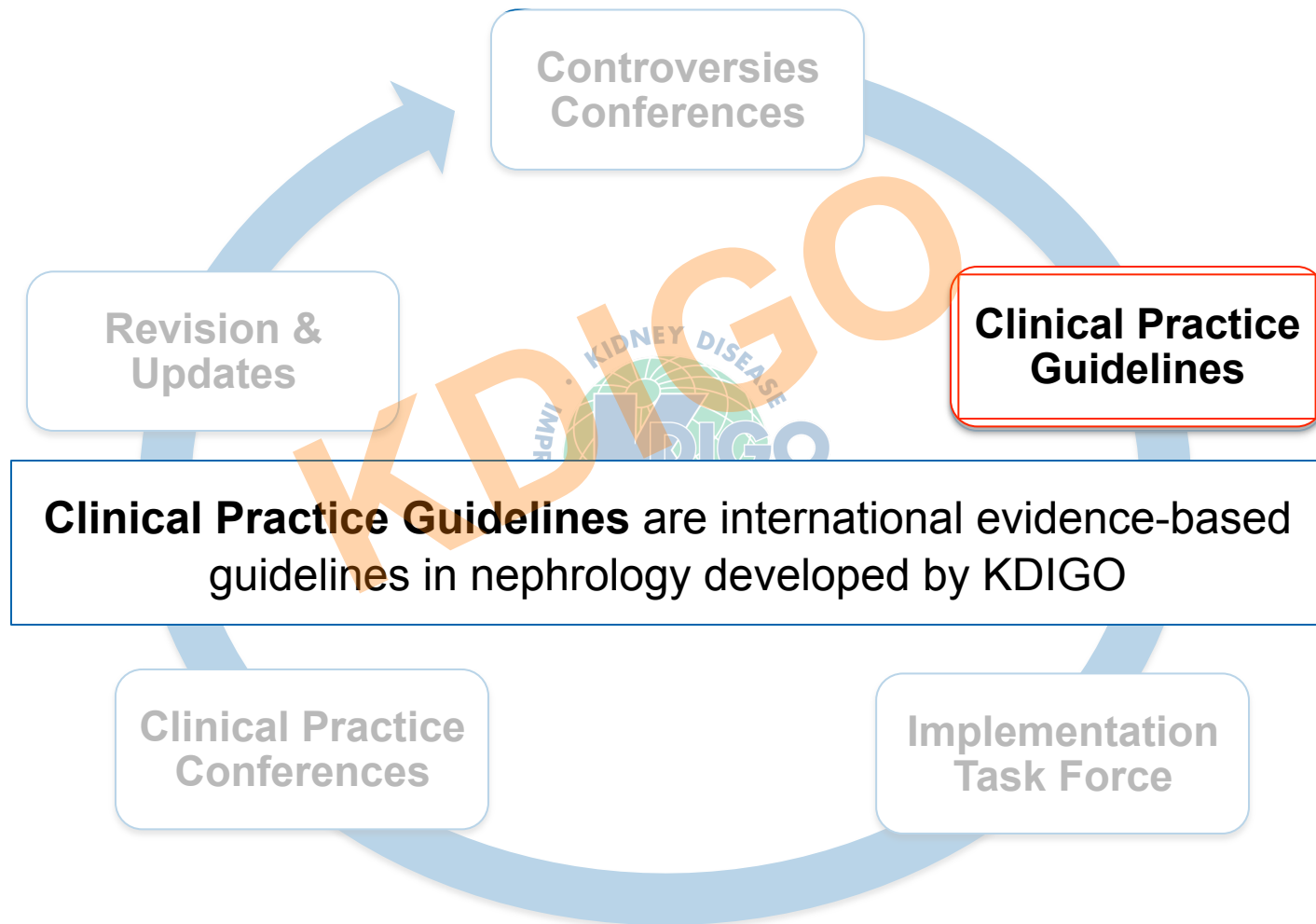
- Growing recognition of CKD as a global public health problem
- Renal Working Group developed ICD-11 codes recruited and managed by KDIGO

## New Research

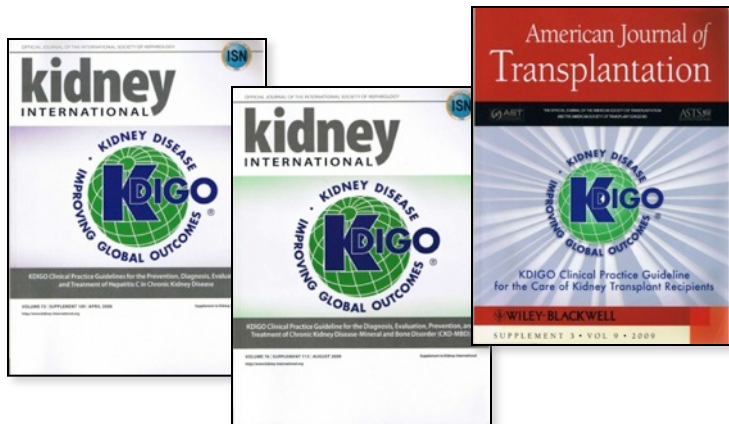
- CKD Prognosis Consortium (CKD-PC)
- An international research group, composed of investigators who share data for the purpose of collaborative meta-analyses to study prognosis in CKD



# Core KDIGO guideline lifecycle

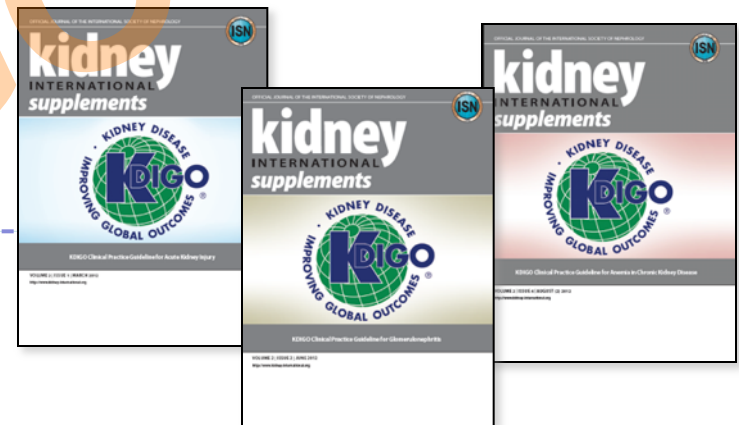


# Published KDIGO guidelines

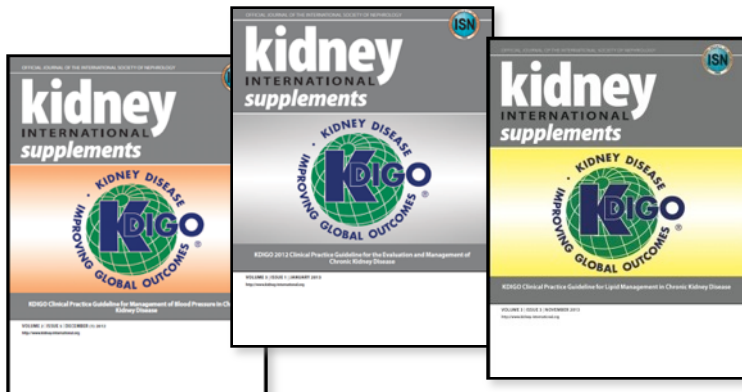


Hepatitis C April 2008  
Mineral Bone Disorder July 2009  
Transplant Recipient Oct 2009

Acute Kidney Injury March 2012  
Glomerulonephritis June 2012  
Anaemia August 2012



Blood Pressure in CKD November 2012  
Diagnosis and Management of CKD January 2013  
Lipid Management November 2013



# Current: The Living Kidney Donor



Evidence Review Center for this guideline is the AHRQ Center at the University of Minnesota. This guideline is being written in collaboration with The Transplantation Society (TTS). It will cover the care, selection, risk assessment and prognosis of the living kidney donor.

## TTS Representatives

Patricia Adams  
*USA*

Lorenzo Gallon  
*USA*

## Work Group Co-Chairs

Amit Garg  
*Canada*

Krista Lentine  
*USA*

## Work Group Members

Josefina Alberu  
*Mexico*

Jose Osmar Medina-Pestana  
*Brazil*

Mohamed Bakr  
*Egypt*

Dorry Segev  
*USA*

Josep Campistol  
*Spain*

Faissal Shaheen  
*Saudi Arabia*

Cathy Garvey  
*USA*

Sandra Taler  
*USA*

Sandeep Gularia  
*India*

Kazunari Tanabe  
*Japan*

Andrew Levey  
*USA*

Linda Wright  
*Canada*

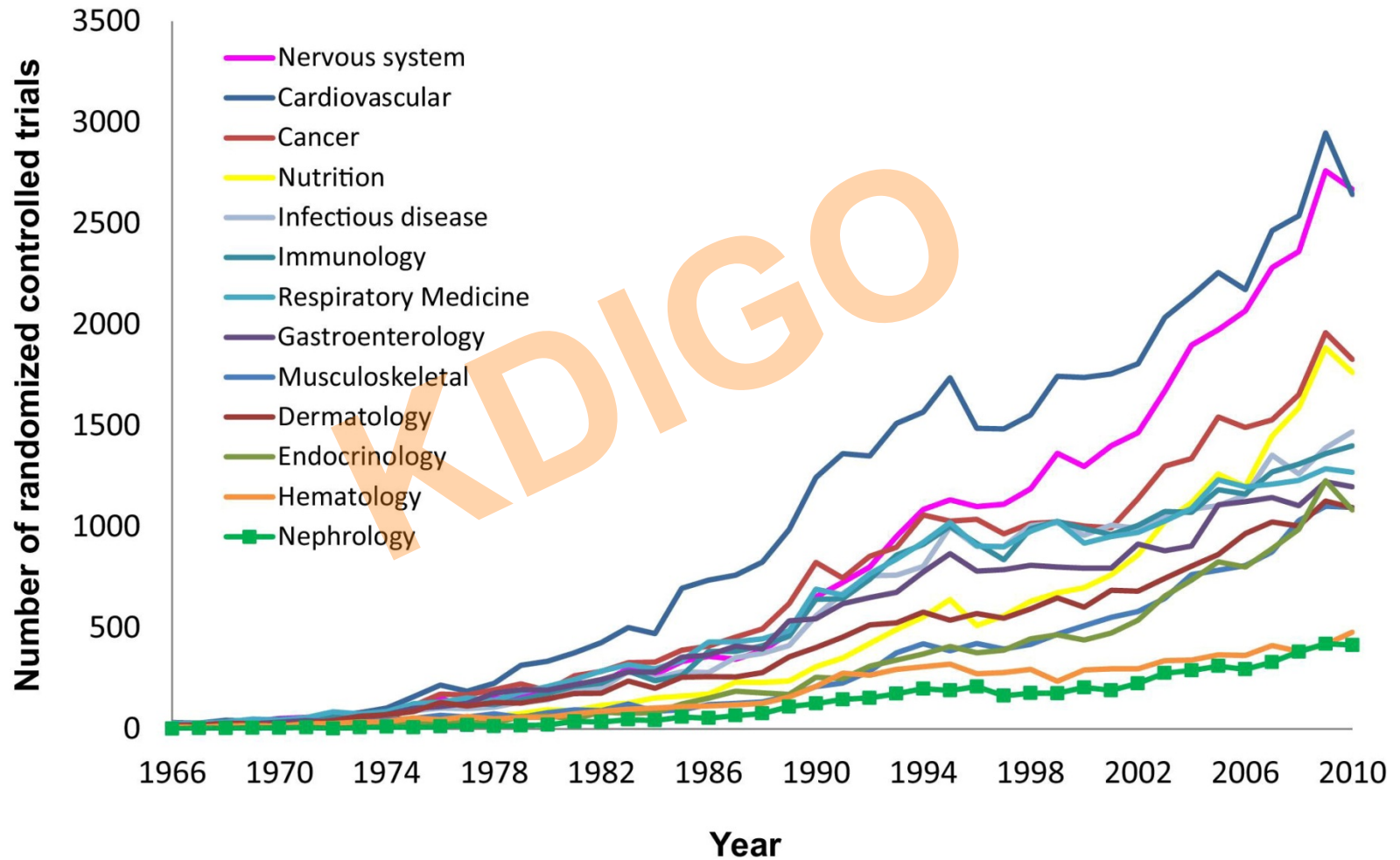
Philip K. T. Li  
*Hong Kong*

Martin Zeier  
*Germany*





# RCTs in different fields



# Transplant guideline quality of evidence and strength of recommendations

Quality of evidence	High	A	Strength of recommendation	1	Corresponds to "strong" in GRADE
	Moderate	B		2	Corresponds to "weak" in GRADE
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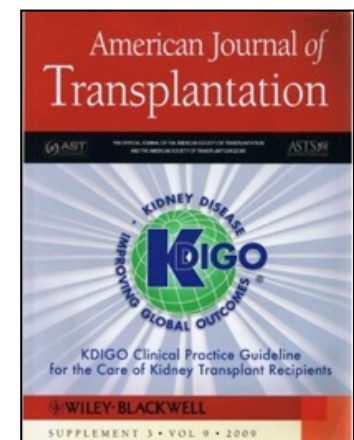
e.g. (**Grade 1C**) or (**Grade 2D**) ... 8 options

Option to include statements that are not graded

## Transplant guideline example



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# Transplant guideline quality of evidence and strength of recommendations

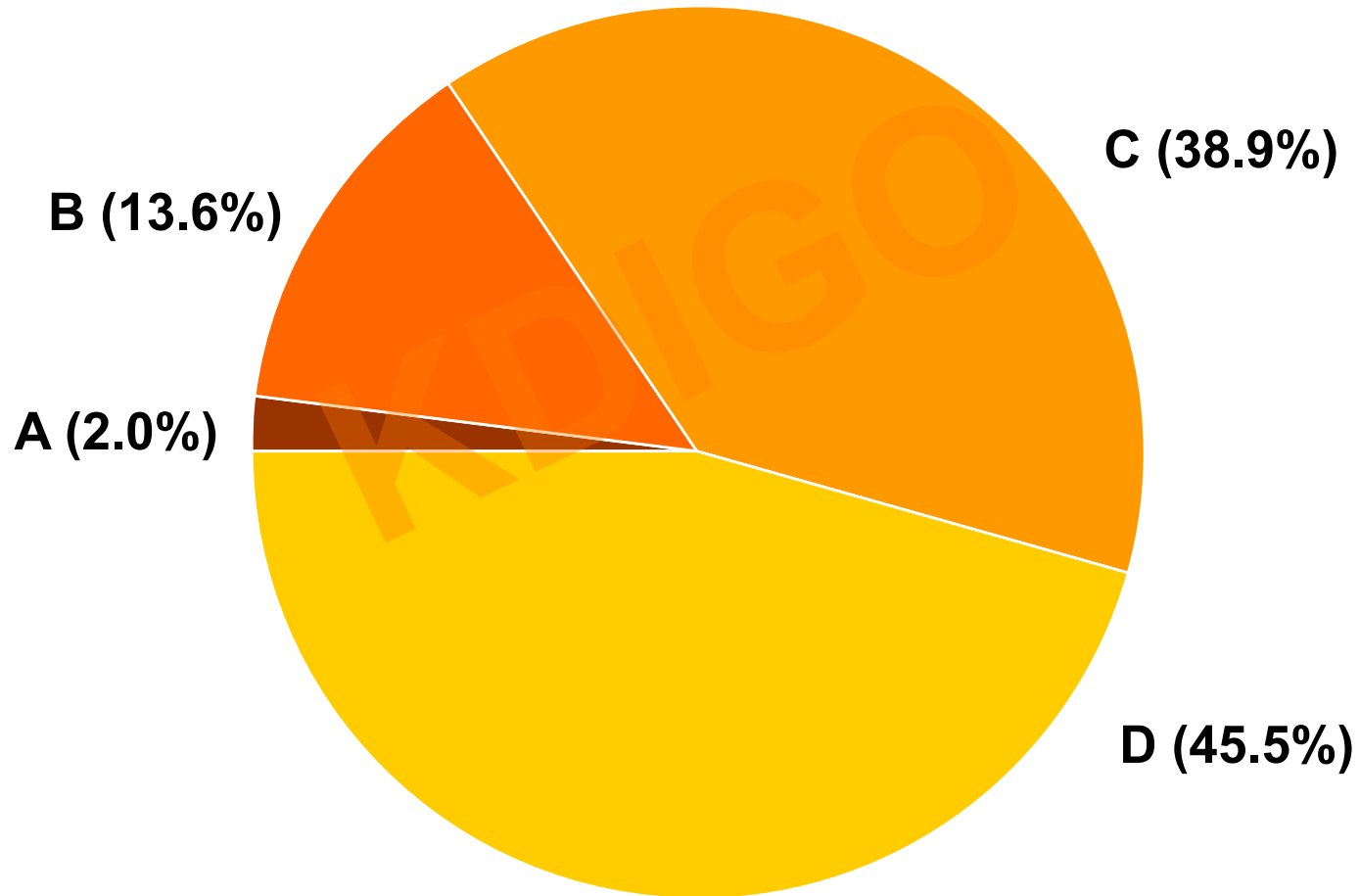
Resources



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# Transplant guideline quality of evidence

Resources



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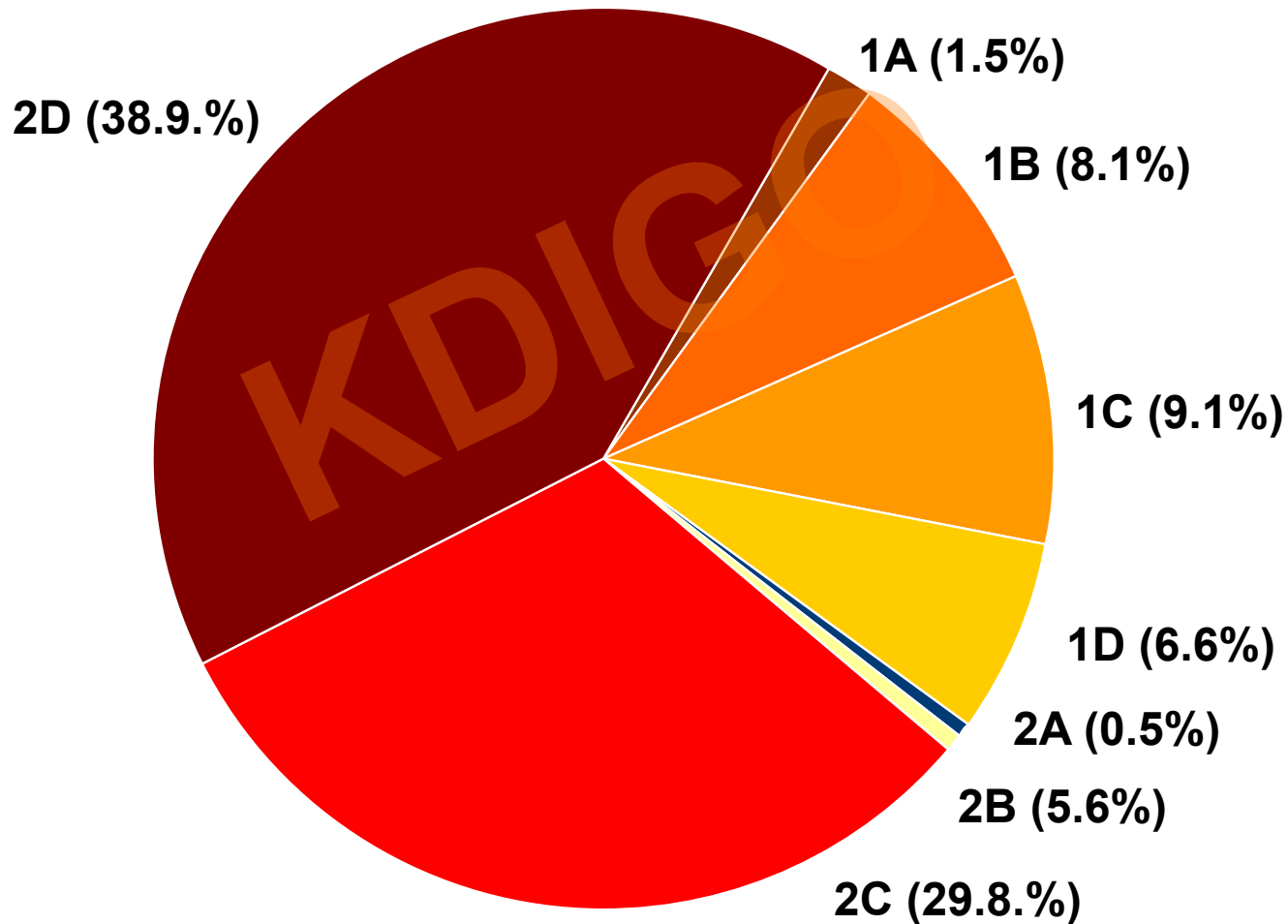
# Transplant guideline strength of recommendations

Resources



# Transplant guideline quality of evidence and strength of recommendations

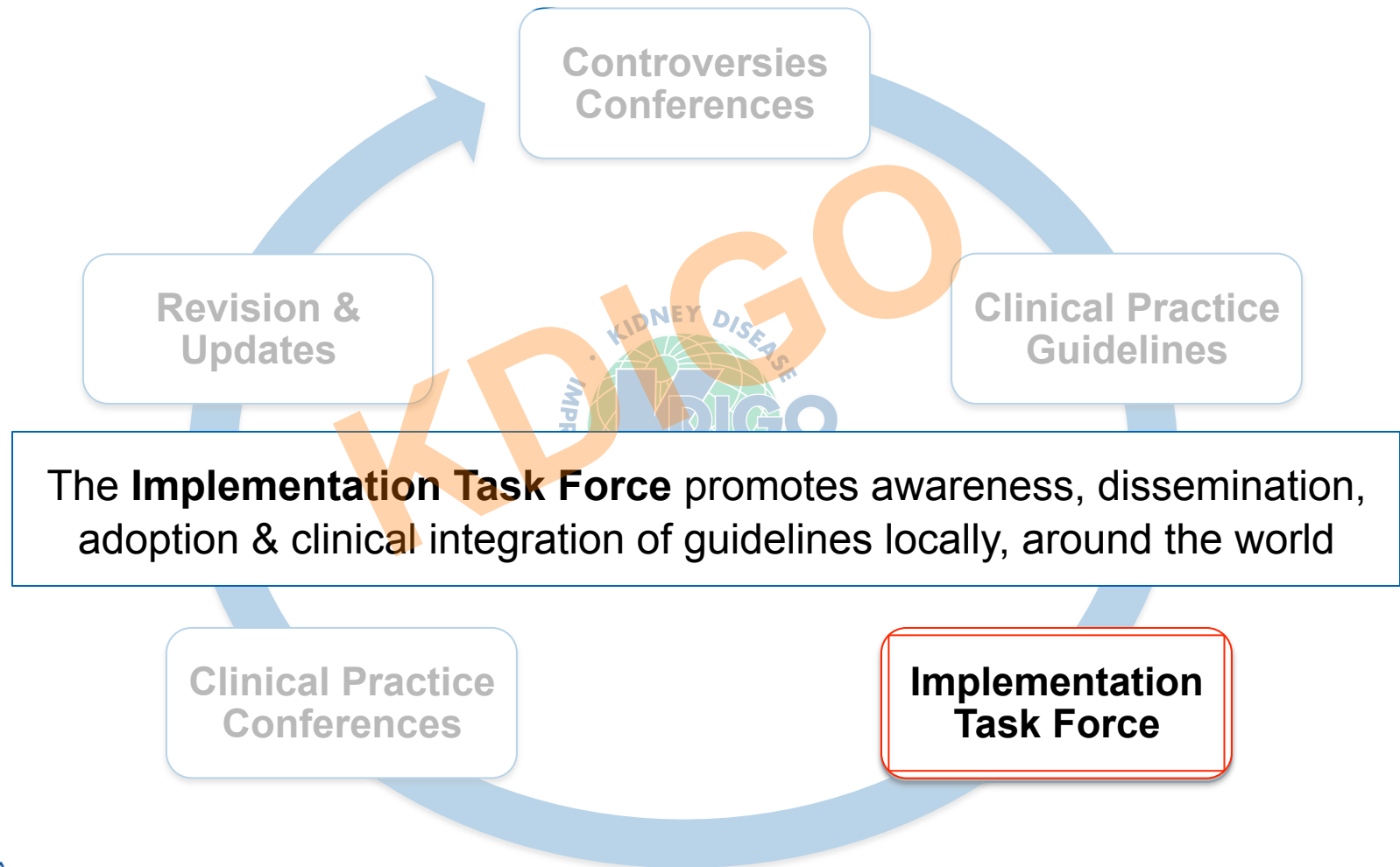
Resources



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# Core KDIGO guideline lifecycle



# Implementation Task Force

## Implementation Task Force

members represent 80 countries, and voluntarily work to disseminate and implement KDIGO Guidelines through presentations, and publication of local and regional translations and adaptations

**Chair:** Yusuke Tsukamoto, *Japan*

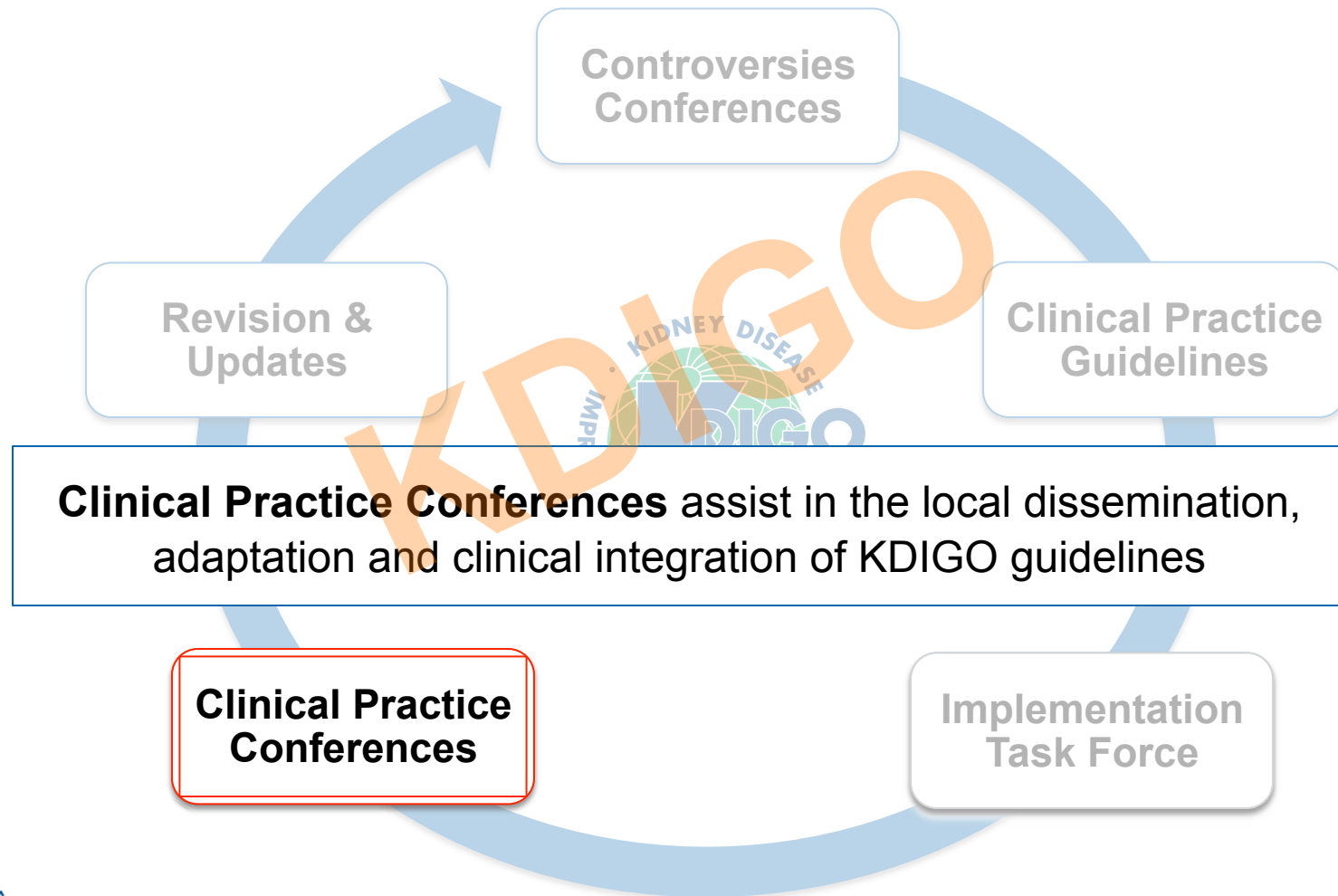


# Task Force responsibilities

- Publish translations and commentaries in countries' journals in the local language
- Collaborate with local and regional societies on presentations, adaptations and publications
- Include KDIGO on stakeholder meeting agendas
- Develop patient and professional education tools to promote use of KDIGO guidelines in clinical practice
- Integrate KDIGO guidelines into local clinical practice
- Include KDIGO messages in local training programs



# Core KDIGO guideline lifecycle



# Clinical Conferences



## Shanghai Clinical Practice Conference

4-5 February, 2012  
700 local nephrologists  
30 KDIGO participants

## New Delhi Clinical Practice Conference

17 March, 2012  
200 local nephrologists  
10 KDIGO participants



# KDIGO overview

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# KDIGO achievements

- One of few global guideline efforts
- 16 Controversies Conferences to date
- 9 published global guidelines
- Paradigm-changing, including examples of
  - A landmark conference on CKD Prognosis
  - A CKD classification and system
  - Clinical Practice Conferences to ensure practical application of KDIGO guidelines locally





# KDIGO guideline implementation survey

The survey was administered on iPads in the KDIGO booth.



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# KDIGO guideline implementation survey

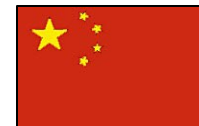
- The **KDIGO Guideline Implementation Survey** was administered from the KDIGO booth at:
  - ERA-EDTA – Istanbul, Turkey (May 18-21, 2013)
  - WCN – Hong Kong, China (May 31- June 3, 2013)
  - ASN Kidney Week – Atlanta, USA (November 6-10, 2013)
- The survey was **voluntary** and respondents were able to skip questions without answering.
- With **over 340 responses** for many questions, this survey provides insight into how KDIGO guidelines are being used globally.



# KDIGO guideline implementation survey

- 88% of the respondents were nephrologists.
- Top 5 countries of respondents:

1. China



2. India



3. The Philippines



4. Egypt



5. Saudi Arabia

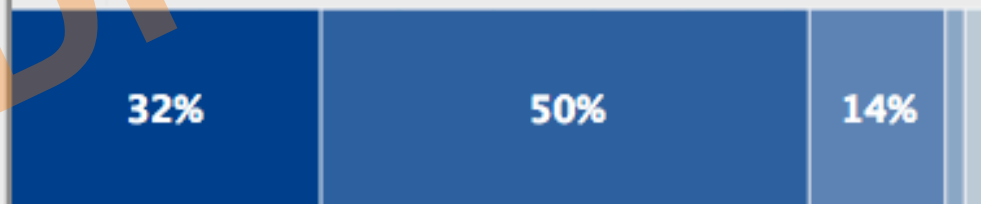


# Do you agree with these statements?

KDIGO guidelines help me make informed decisions when managing patients with CKD.



KDIGO guidelines are my main source of information when I manage patients with CKD and I try to adapt their recommendations to individual patients.

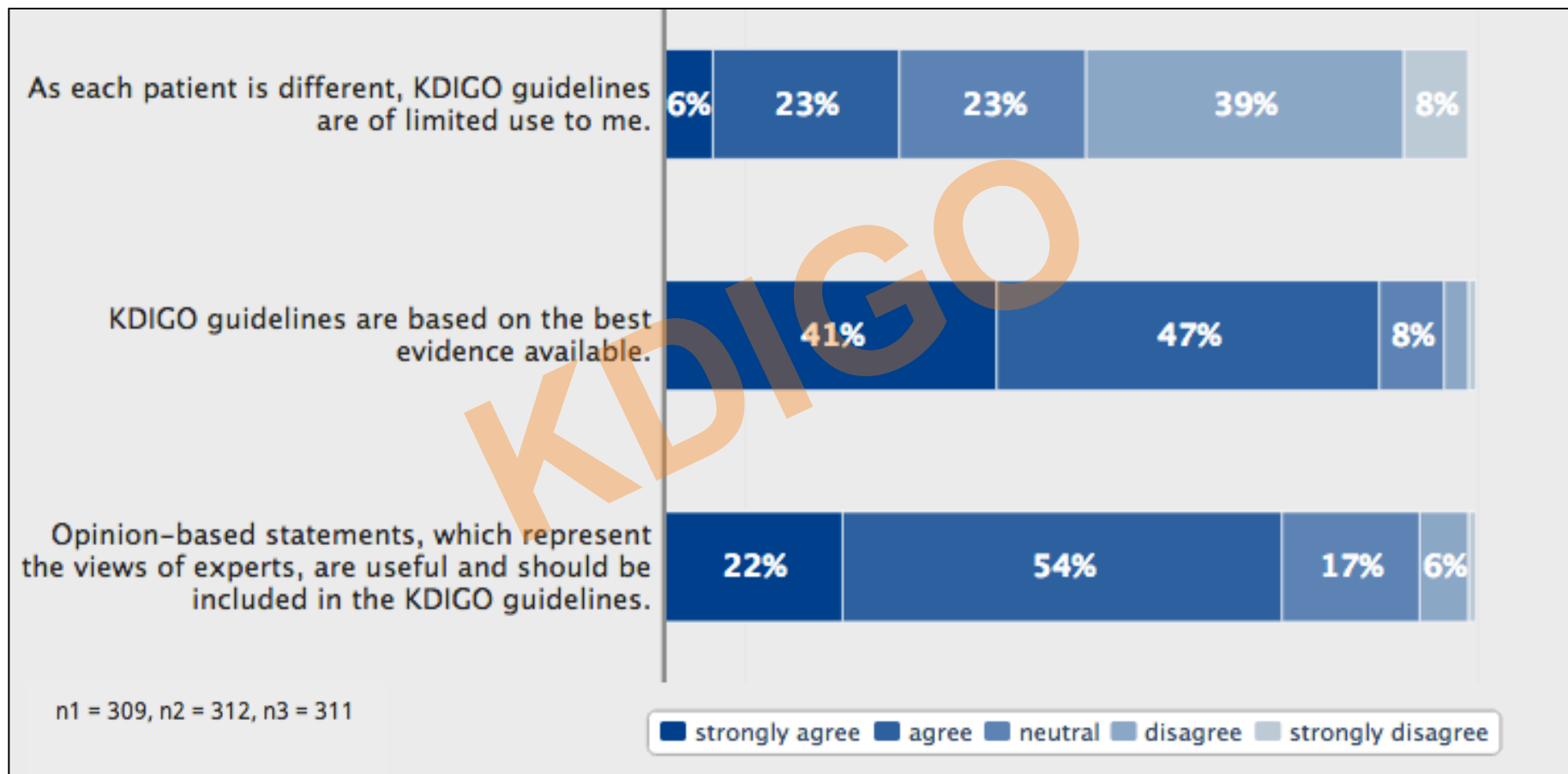


n1 = 312, n2 = 314

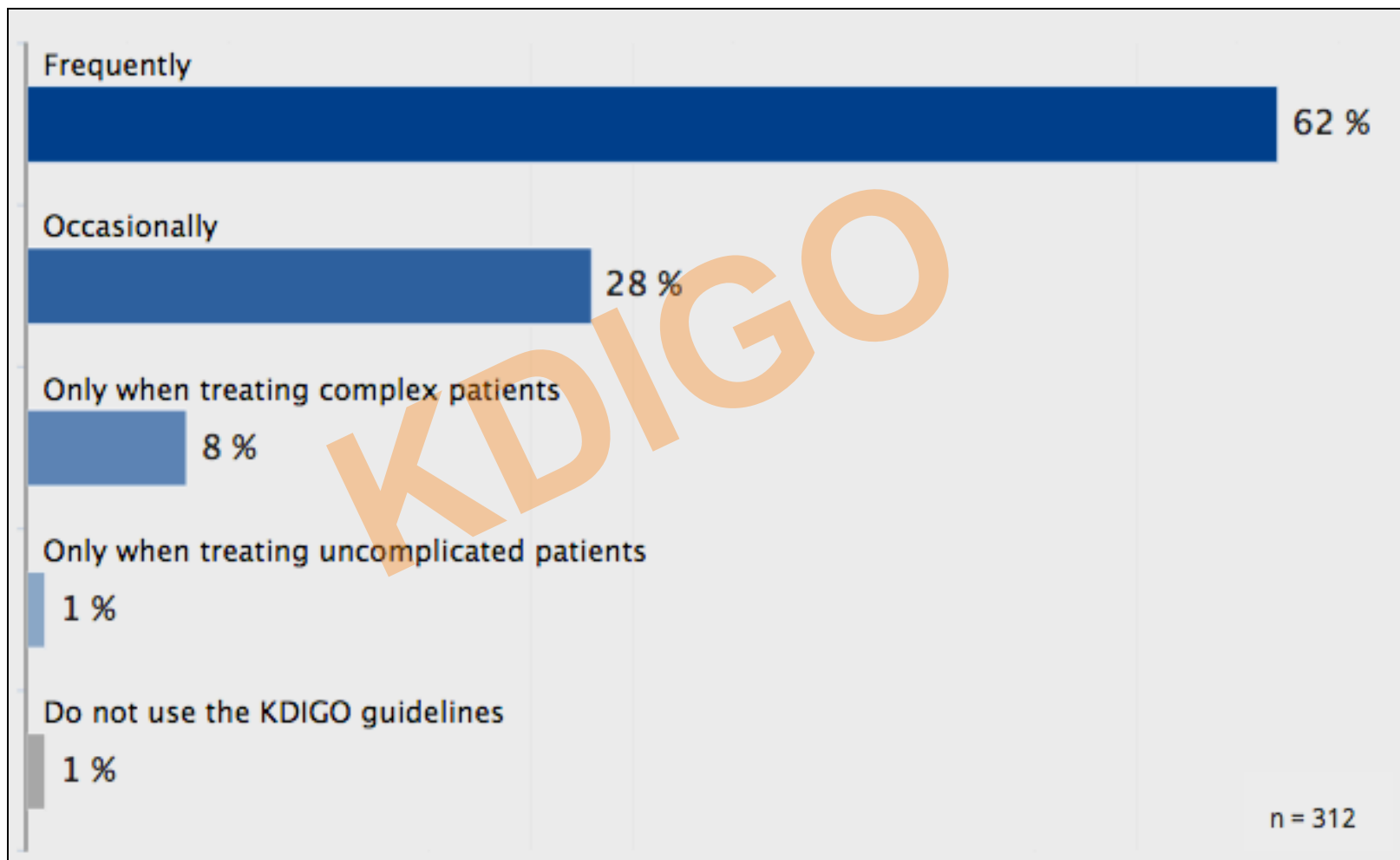
strongly agree agree neutral disagree strongly disagree



# Do you agree or disagree with these statements?

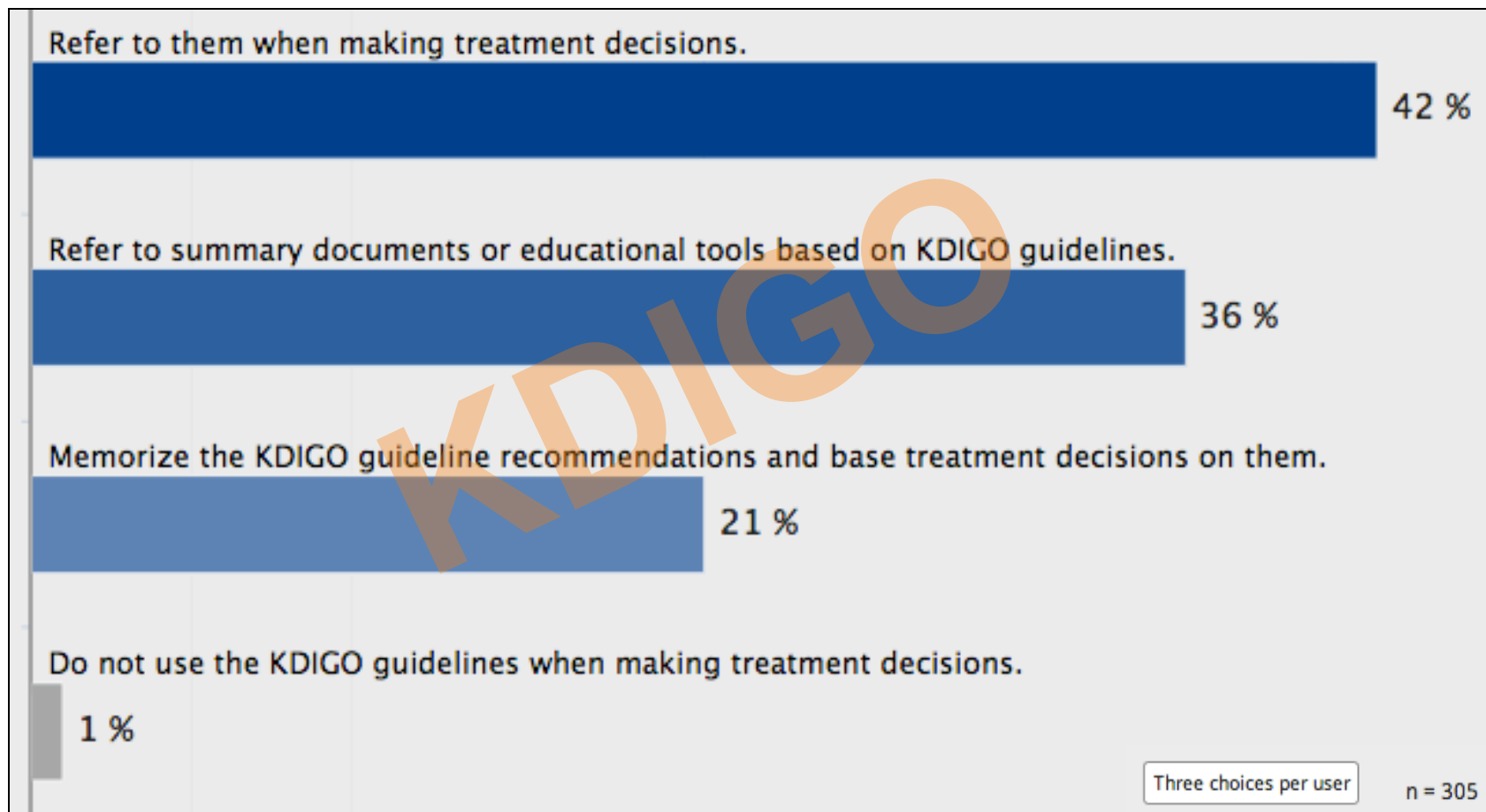


# How often do you and your colleagues refer to the KDIGO guidelines to support treatment decisions?

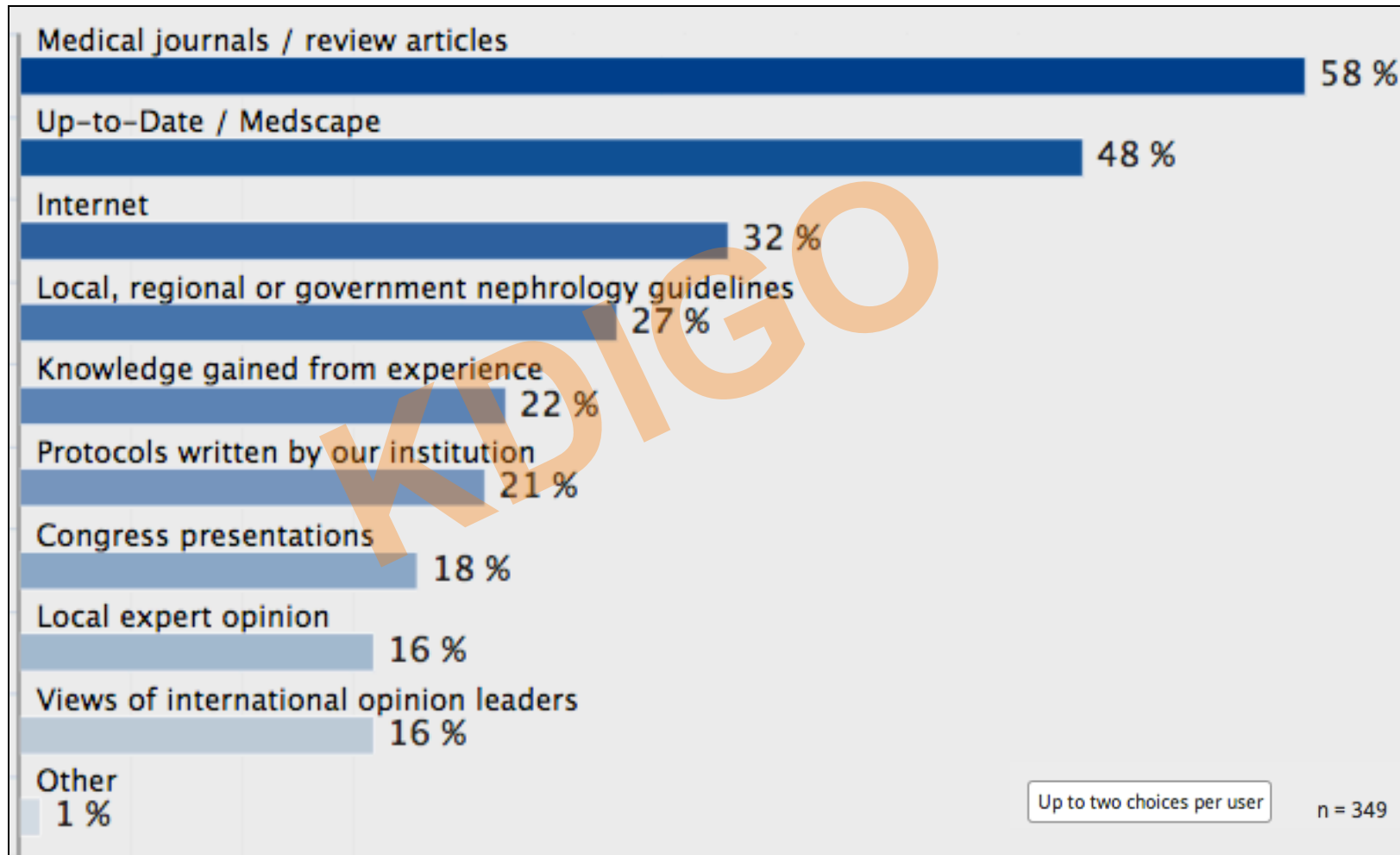




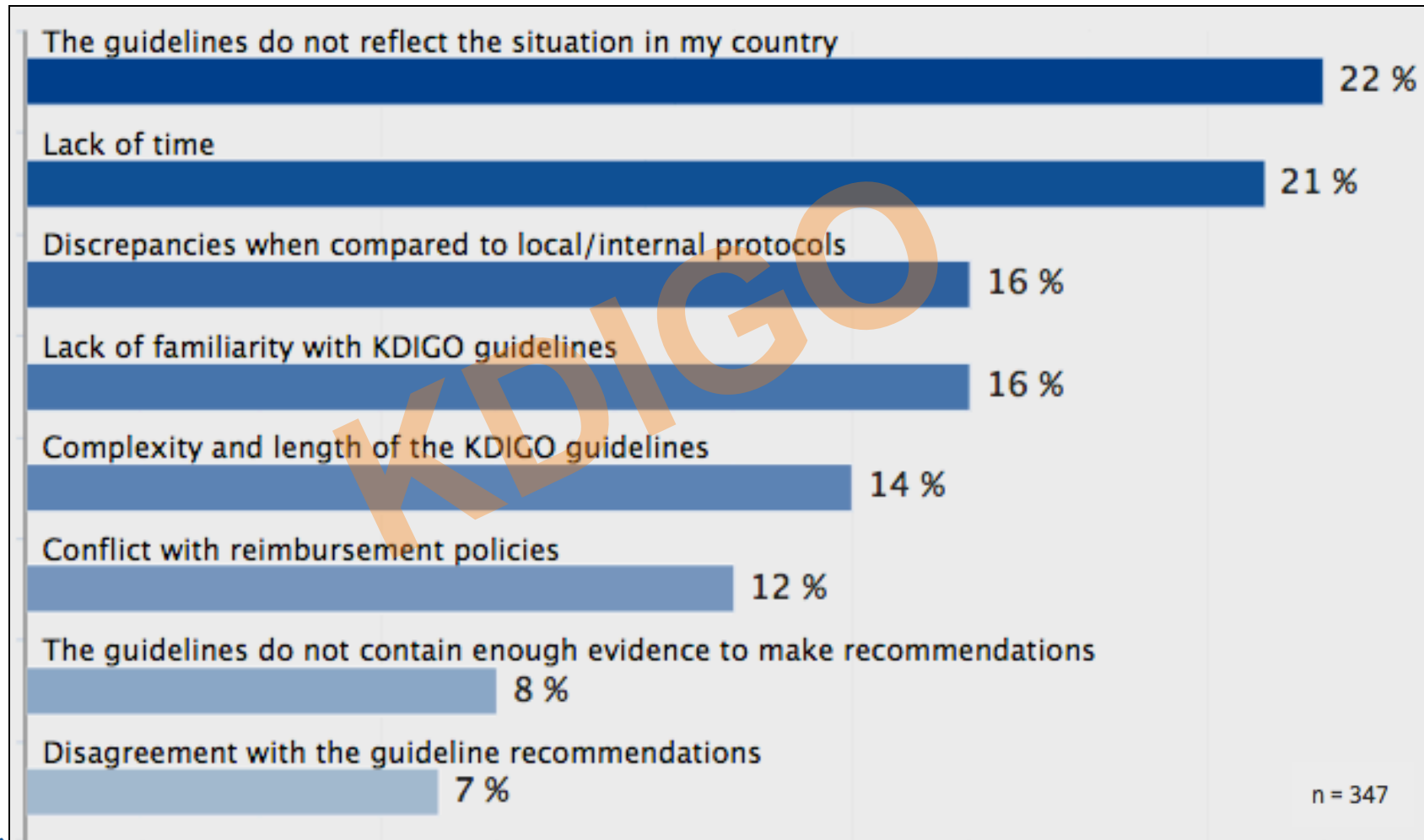
# Which one of these statements best describes how you and your colleagues use the KDIGO guidelines in the care of patients?



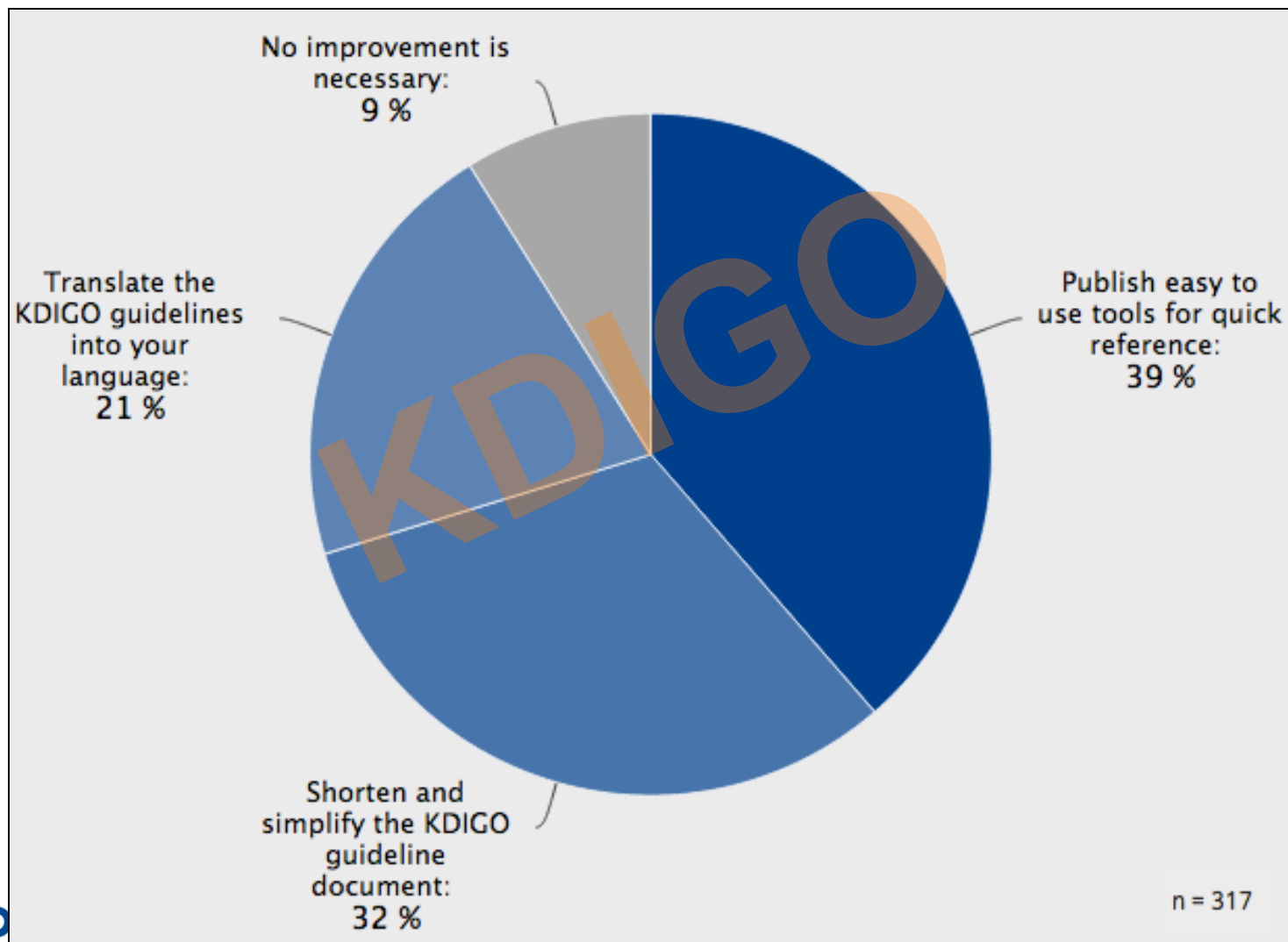
# If you and your colleagues do not use the KDIGO guidelines, what other sources of information are used for treatment decisions?



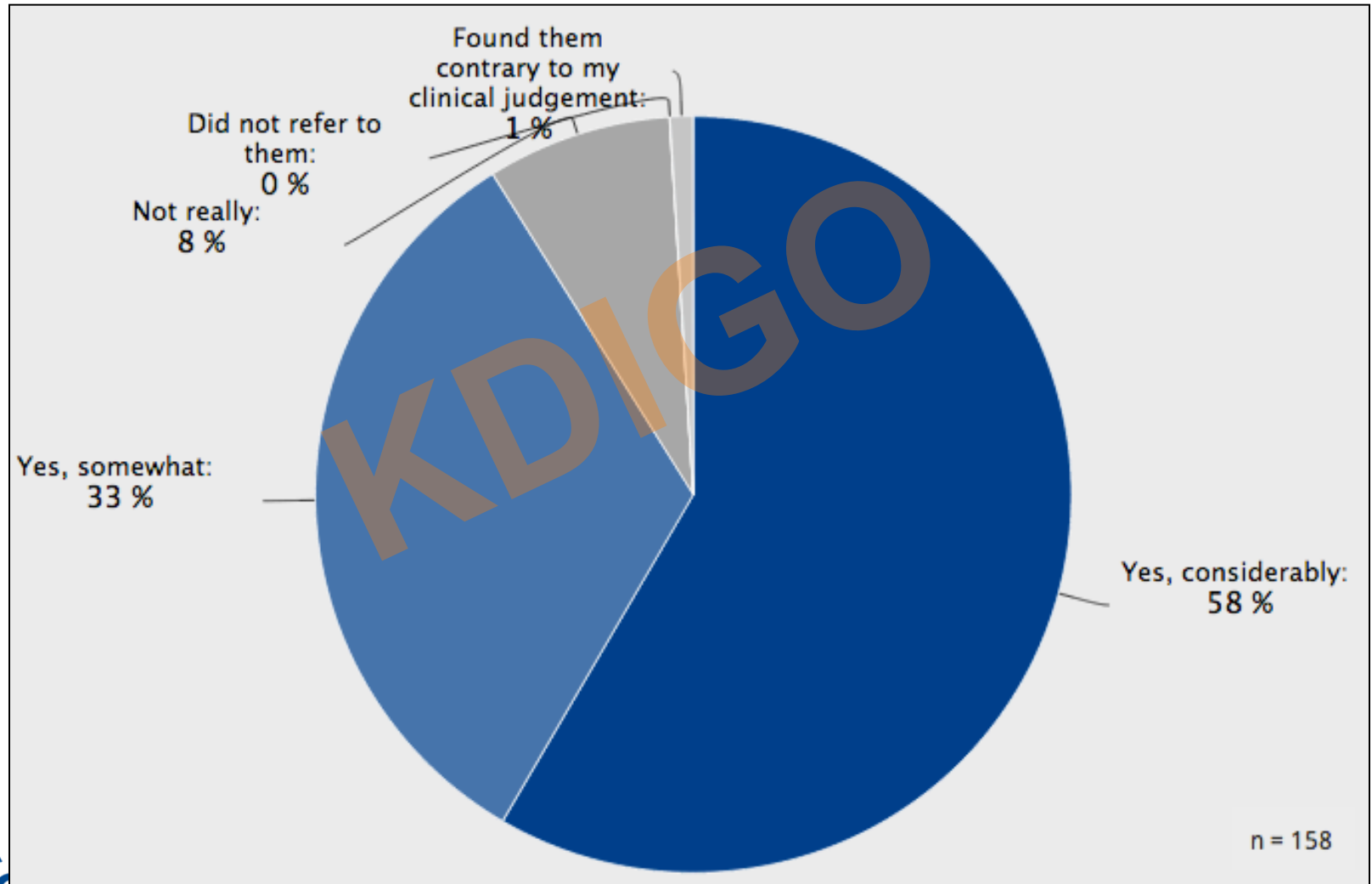
# If you and your colleagues do not use the KDIGO guidelines, what are the main reasons?



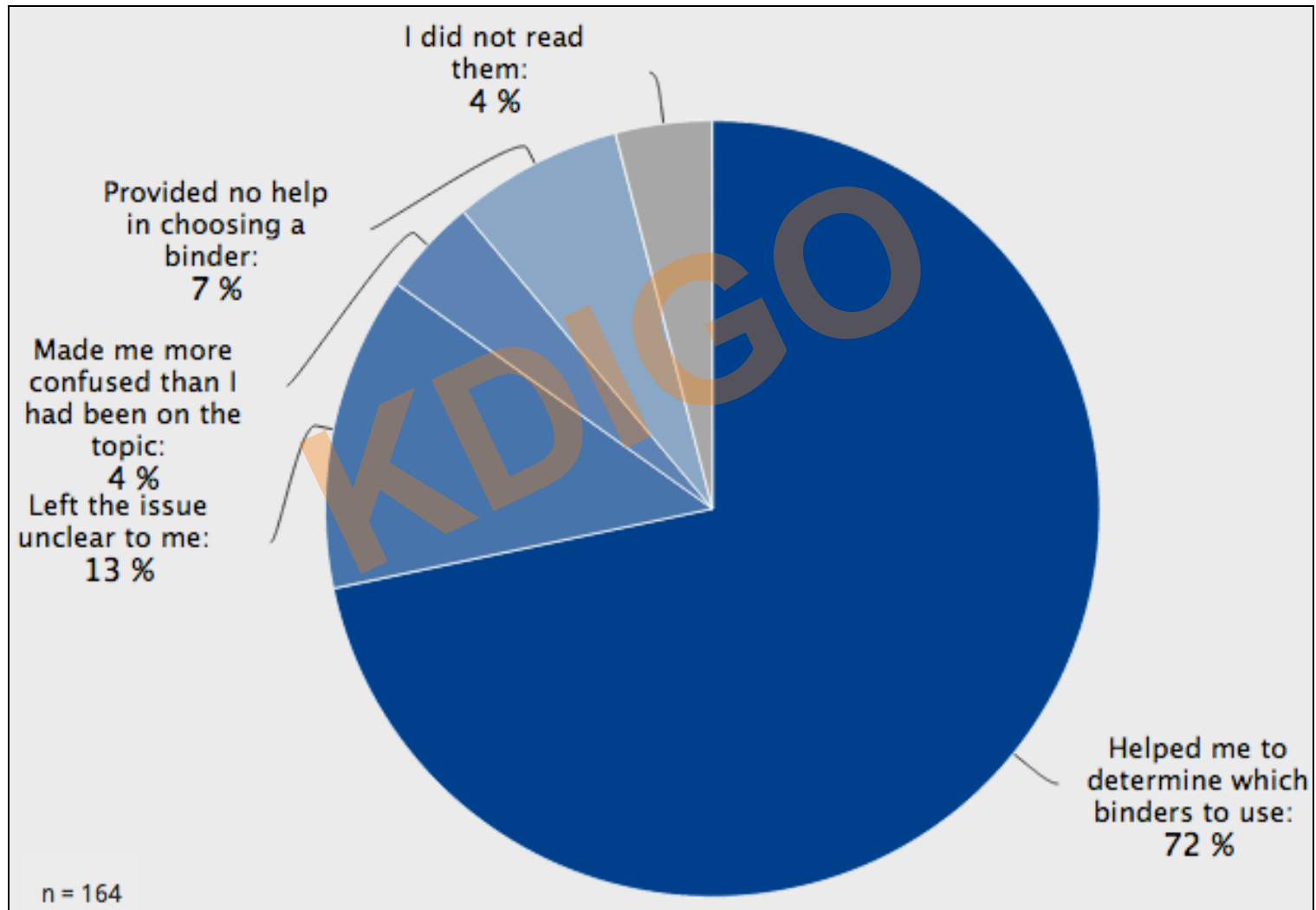
# How could the presentation of the KDIGO guidelines be improved to better meet your needs?



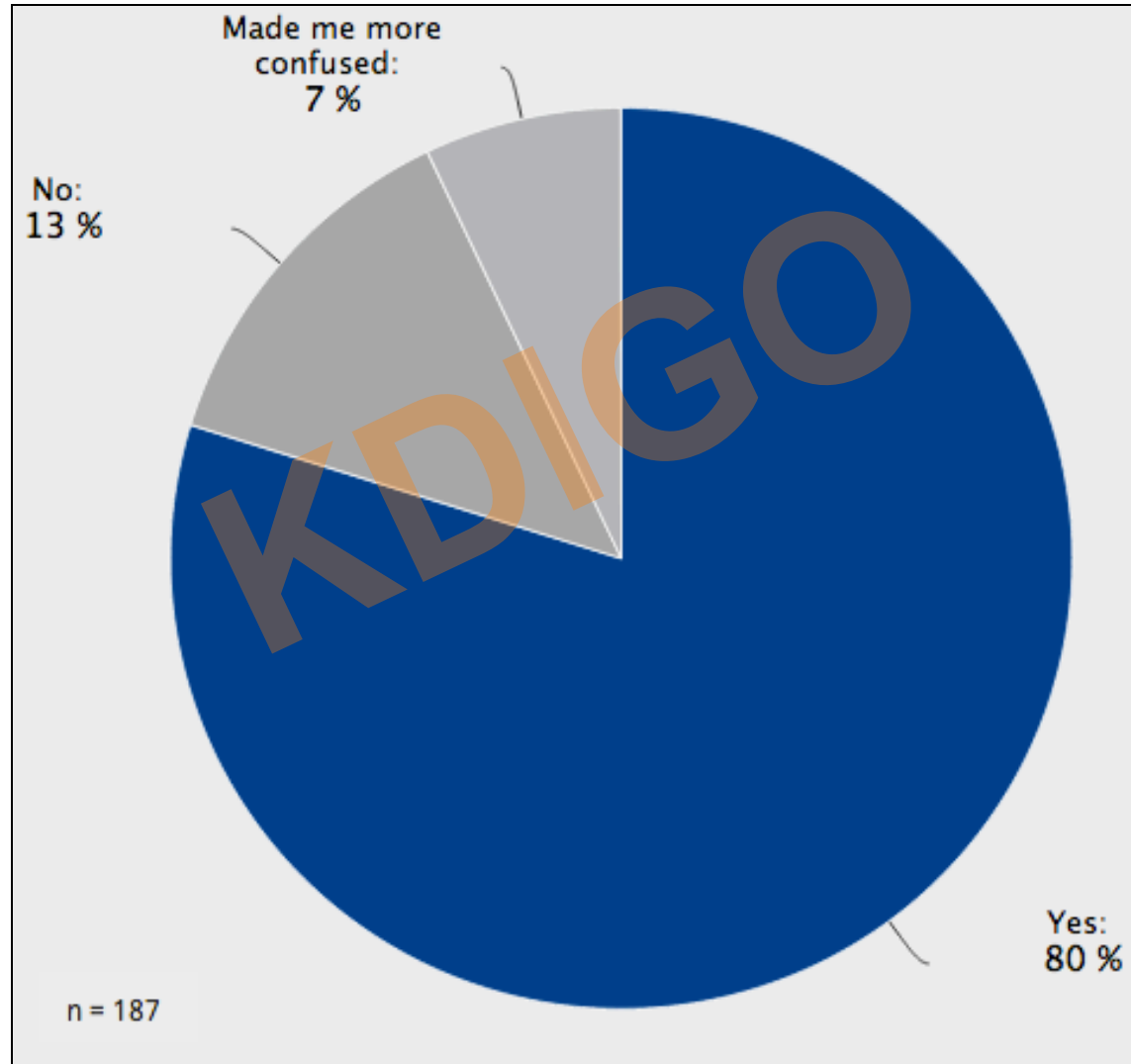
# In the 2009 KDIGO CKD-MBD Guideline, did the recommendations on phosphorus control influence your treatment of patients?



# In the 2009 KDIGO CKD-MBD Guideline, the recommendations regarding the use of phosphate binders:



# Did the 2009 KDIGO CKD-MBD Guideline provide sufficient guidance for you regarding the targets for blood levels of calcium, phosphorus and PTH?





# Implementation survey highlights

- KDIGO Guidelines are used as a primary reference by nephrologists.
- KDIGO Guidelines would be preferred in shorter, more concise formats such as booklets and pocket guides.
- When KDIGO Guidelines are not used, the primary sources for information include peer-reviewed journal articles and Up to Date/Medscape.
- KDIGO Guidelines need to be adapted for local use.



# Where do we go from here?

## Controversies Conferences

- Examine significant nephrology topics that result in a published position paper to share with the community

## Clinical Practice Guidelines

- Develop international, evidence-based guidelines in nephrology

## Implementation Task Force

- Promote awareness, dissemination, adoption & clinical integration of guidelines locally, around the world

## Clinical Practice Conferences

- Assist in the local dissemination, adaptation and clinical integration of KDIGO guidelines



# Thank you ...

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**for your participation  
and support!**



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