# Update on KDIGO Methods

# Proposal as presented to KDIGO EC

- Publish GL online in MAGICApp and a larger print version with more narrative guidance (but no additional recommendations)
- Pilot tests of BP, GN and diabetes
- If these pilot tests are successful, gradually convert all existing GL to MAGICapp

# Background work

- Contracts agreed with MAGICApp and Cochrane
- Converted old (current) BP and GN guidelines to MAGICApp format
- Started work on Methods Manual
  - all processes up to and including Day 0 meeting complete

- Held Day 0 meeting for BP and GN guideline

# Day 0 meeting

- Review of GRADE methods
- Decide on critical/important outcomes for each GL
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Formulate question

Select outcomes

Rate importance

Outcomes across studies

Create evidence profile

Rate quality of evidence for each outcome

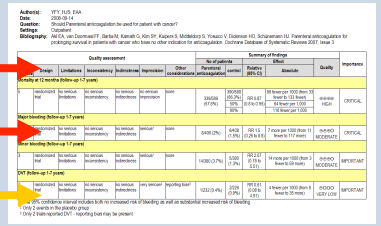
P
I
C
O

Outcome Critical

Outcome Critical

Outcome Important

Outcome Not important



Summary of findings & estimate of effect for each outcome

High
Moderate
Low
Very low

Randomization increases initial quality

Grade down

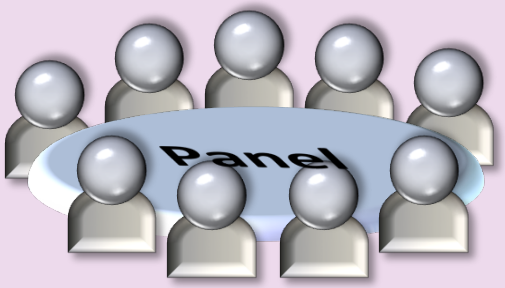
1. Risk of bias
2. Inconsistency
3. Indirectness
4. Imprecision
5. Publication bias

Grade up

1. Large effect
2. Dose response
3. Confounders

*Systematic review*

*Guideline development*




Grade
overall quality of evidence
across outcomes based on
lowest quality
of ***critical*** outcomes

**Formulate recommendations**:

- For or against (direction)
- Strong or weak/conditional (strength)

*By considering:*

- ❑ Quality of evidence
- ❑ Balance benefits/harms
- ❑ Values and preferences

Revise if necessary by considering:

- ❑ Resource use (cost)

- "We recommend using…"
- "We suggest using…"
- "We recommend against using…"
- "We suggest against using…"

www.GradeWorkingGroup.org

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Kidney and Transplant

# Outcomes – Blood pressure guideline update

| Critical outcomes |
| --- |
| All-cause mortality |
| End-stage kidney disease (need for dialysis / eGFR <15min/ml/1.73m$^2$) |
| Allograft failure (relevant to transplantation section) |
| Myocardial infarction |
| Stroke |
| Dementia |
| **Important outcomes** |
| Doubling serum creatinine |
| Acute kidney injury |
| Falls |
| Fatigue |

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# Outcomes – Glomerulonephritis guideline update

| **Critical outcomes** |
| --- |
| All-cause mortality |
| End-stage kidney disease (need for dialysis / eGFR <15min/ml/1.73m$^2$) |
| 50% loss of GFR |
| Infection |
| Malignancy |
| **Important outcomes** |
| Complete remission (as defined by the study investigator) |
| Annual GFR loss (minimum three year follow-up required) |

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# Analytical framework

- **What**
  - Evidence model that links and defines clinical concepts, evidence, and populations as they relate to outcomes
- **Why**
  - Starting point for discussions – iterative
  - Defines questions which must be answered
  - Clarifies implicit assumptions
  - Specifies populations, interventions and outcomes
  - Clarify links between intermediate and health outcomes

Woolf et al. 2012 *Implement Sci* 2012;7:61

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# Components of analytical frameworks

- Population of interest
- Intervention
- Linkages that demonstrate key questions
- Intermediate outcomes, harms and health outcomes

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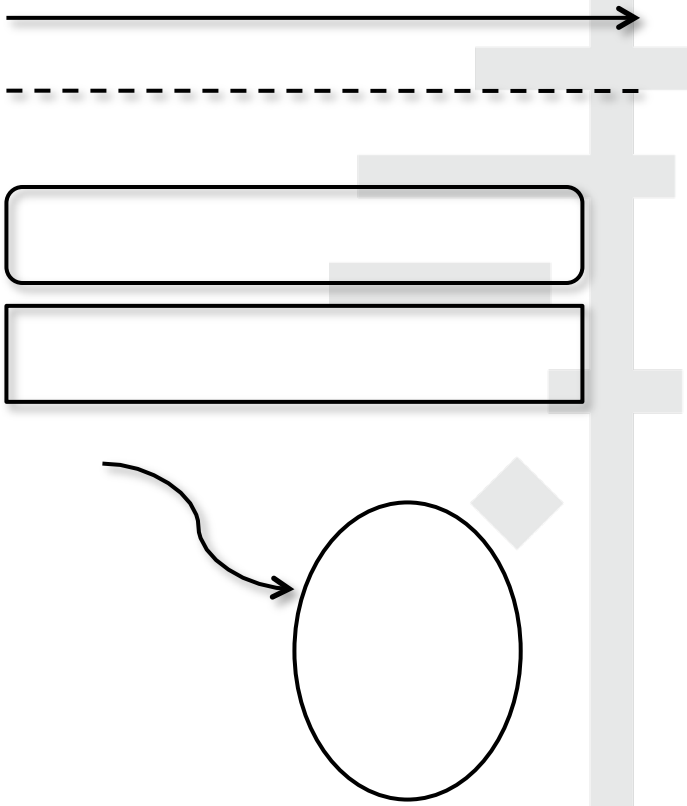
# Graphical representation of analytical frameworks

- Graphical chain of logic
  - Arrows (linkages, treatment, questions)
  - Dotted lines (associations)
  - Rectangles
    - Rounded corners (intermediate outcomes)
    - Square corners (health outcomes)
  - Oval (harms)
- Key questions



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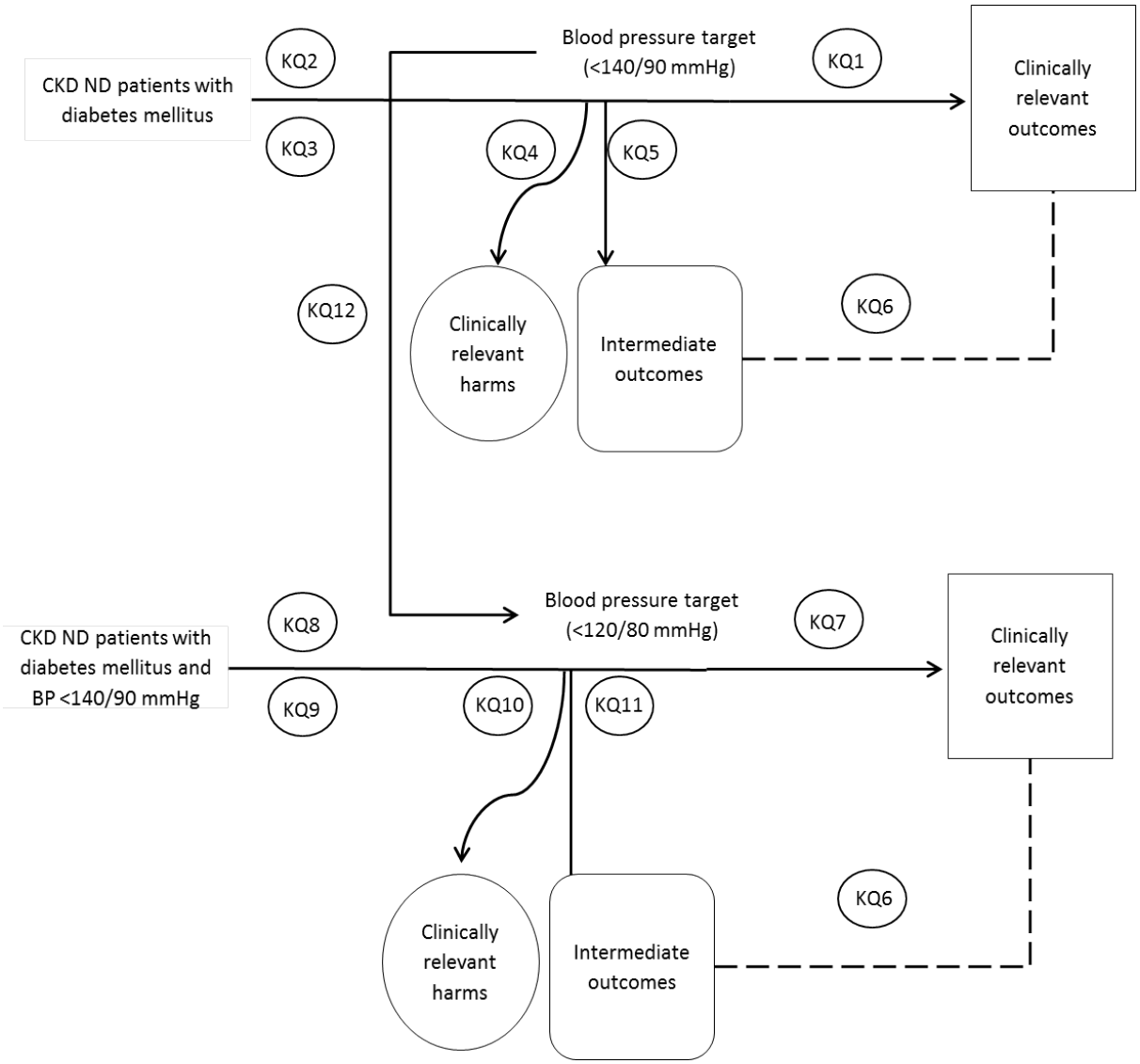
# Themes of BP analytical frameworks

- Population – CKD
- BP targets (<140/90 mmHg, <120/80 mmHg)
- Anti-hypertensive therapy
- Outcomes
  - Clinical relevant outcomes
  - Harms
  - Intermediate / surrogate outcomes

# Exemplar analytical framework for BP guideline



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# Example PICO questions

## GN guideline – Lupus nephritis

| Population | Intervention | Comparator | Outcomes |
|---|---|---|---|
| Patient with class III, IV and III/V or IV/V lupus nephritis | Immunosuppressive therapy | Placebo/other immunosuppressive medication etc. | As listed above |
| Patients with class I, II, V or VI lupus nephritis | Immunosuppressive therapy | Placebo/other immunosuppressive medication etc. | As listed above |
| Patients with lupus nephritis | Hydroxychloroquine | Placebo | As listed above |

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# Example search strategies
## GN guideline – lupus nephritis

- All **published** and **ongoing** RCTs examining immunosuppressive therapy in patients with **proliferative** (class II, IV or III/V, IV/V) **lupus nephritis** from the **Cochrane Kidney and Transplant Registry of Studies**.
- All **published** and **ongoing** RCTs examining **immunosuppressive therapy** in patients with **non-proliferative** (class I, II, V, VI) **lupus nephritis** from the **Cochrane Kidney and Transplant Registry of Studies**.
- All published **observational studies** (everything beyond case-reports) the use of **hydroxychloroquine** in patients with **lupus nephritis** from the relevant scientific literature databases (including **Medline, EMBASE** etc.)

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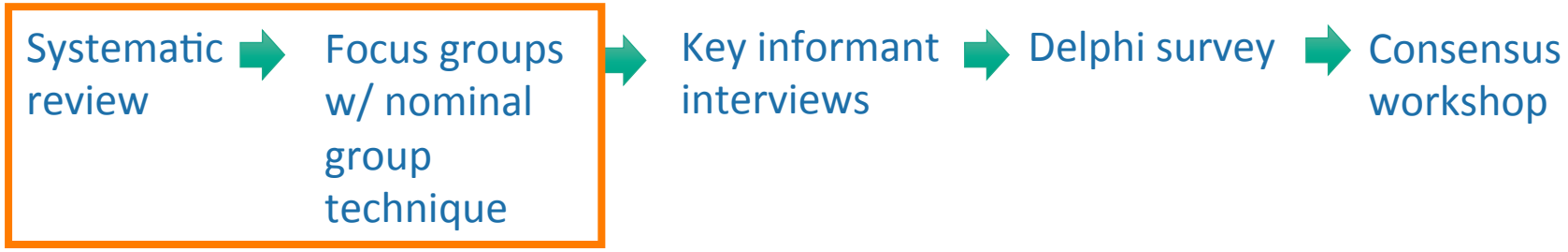
SONG
STANDARDISED OUTCOMES IN NEPHROLOGY

# SONG-GN

- New SONG stream – SONG-GN – concurrently with the KDIGO GN Guideline Update
- To identify and incorporate patient priorities for outcomes into the KDIGO GN Guidelines
- Overall process:




The methodological framework is adapted from OMERACT/COMET, which is recognized by the WHO as a valid approach for developing core outcomes. These are also the recommended approaches for involving patients and caregivers in a **transparent, systematic and meaningful** way.

We will conduct phase (1) and (2) to identify outcomes that are important to patients and family members to inform the selection of outcomes to include in the CKT systematic reviews and the KDIGO Guideline Update – prior to the KDIGO GN Meeting in August 2018.

# SONG-GN: status & project plan

- Appointed Co-Chairs: Dan Cattran, Liz LIghtstone
- Project Coordinator: Simon Carter (paediatric nephrologist)

**Phase 2: focus groups/nominal group technique**

- Nominal group technique to generate **a patient-prioritised list of outcomes**
- Minimum 18 nominal groups (10 participants per session); total=180 patients/caregivers minimum (purposive sampling for diversity)

| Location | Center | N groups | Language/s | Site Investigator |
|---|---|---|---|---|
| Sydney, AUS | Westmead Hospital | 3 | English | D Harris |
| Melbourne, AUS | Monash | 3 | English | P Kerr |
| Brisbane, AUS | Princess Alexandra | 3 | English | YJ Cho, A Viecelli |
| LA, USA | UCLA | 3 | English, Spanish | J Shen |
| Sheffield, UK | Uni of Sheffield | 2 | English | M Wilkie |
| London, UK | Imperial | 2 | English | L Lightstone |
| Montreal, CAN | TBC | 2 | French | TBC (via A Bernier-Jean) |
| Hong Kong (?) | TBC | TBC | English | Angela Wang |

# SONG-GN: timeline

| Year, Quarter | 2018 | | | | 2019 | | | |
|---|---|---|---|---|---|---|---|---|
| **Phase** | **Q1** | **Q2** | **Q3** | **Q4** | **Q1** | **Q2** | **Q3** | **Q3** |
| 1. Systematic review | | | | | | | | |
| 2. Focus group with nominal group technique | | | | | | | | |
| 3. Stakeholder interviews | | | | | | | | |
| 4. Delphi Survey | | | | | | | | |
| 5. Consensus workshop | | | | | | | | |

KDIGO GN Meeting 26-28 August 2018 | Final guideline (tbc)

The SONG-GN process involves patients and caregivers in a transparent, meaningful, and systematic way; to identify a prioritised list of outcomes for GN trials. The outcomes identified from Phase 2 SONG-GN will directly inform the selection of outcomes in the CKR Systematic Reviews and the KDIGO Guidelines.

**SONG-GN provides a robust and rigorous mechanism for KDIGO to involve patients and caregivers in the selection of outcomes for the GN Guideline Update.**

# SONG-GN: KDIGO contribution

Internal funding available to conduct focus groups in Australia where the SONG team are currently based. With contribution from KDIGO, we will be able to conduct **at least an additional 9 focus/nominal groups with 90 patients/caregivers across four sites in three countries – United States, United Kingdom, and Canada; and in three languages.** The contribution and support of KDIGO will be acknowledge in all manuscripts and presentations arising from this work.

| Item | Description | KDIGO contribution | Total (USD) |
|---|---|---|---|
| 1.0FTE Project officer | Simon Carter, Nephrologist, PhD | - | |
| Facilitators | Simon Carter, Talia Gutman, Charlotte Logeman, Allison Tong | - | |
| Focus groups (Australia) | Venue hire ($750 x 9 groups = $6750); participant reimbursement ($50 x 90 participants = $4500); transcription ($300 x 9 groups = $2700) | - | 13950 |
| Focus groups (USA, UK, Canada) | Venue hire ($750 x 9 groups = $6750); participant reimbursement ($50 x 90 participants = $4500); transcription ($300 x 9 groups = $2700) | 13950 | 13950 |
| | Translation and interpretation of focus groups and transcripts | 1000 | 2000 |
| | Internal travel only for 2 facilitators (Flights, hotel, transport) | 5000 | 10000 |
| Stakeholder interviews | Travel and transcription 50 interviews | - | 6000 |
| Delphi | Programming | - | 10000 |
| Consensus workshop | Venue, participant reimbursement (Co-badged as SONG-GN and KDIGO) | 3000 | 10000 |
| TOTAL | | 21770 | |

# Next steps

- Cochrane to work on SR
- SONG to work on patient preferences
- Cello to work on Methods Manual
  - moving from evidence to recommendations
- Diabetes day 0 meeting (April 2018)

- Decide on nature and extent of support required from MAGICApp for guideline production

# Timeline

By March 1, 2018

- Distribute PICO literature search parameters as agreed in Houston to GL Chairs and WG for fine-tuning

April 15, 2018

- DM PICO analytical framework draft for review in Chicago
- Preliminary Scoping Review of Diabetes Evidence

By May 1, 2018

- Diabetes Work Group Meeting “0”
- Distribute PICO literature search parameters as agreed in Chicago to GL Chairs and WG for fine-tuning

By July 15, 2018

- Working on Literature Review and Evidence Appraisal for GN and BP Updates
- Evidence Reports for GN delivered to Guideline Co-chairs

# Timeline

By August 1, 2018
- Evidence Reports for BP delivered to Guideline Co-chairs
- Conference Call Presentation of Evidence to GN Work Group
- Complete Transfer of GN Original Guideline to MAGICApp

By September 1, 2018
- GN Work Group Meeting
- Conference Call Presentation of Evidence to BP Work Group
- Complete Transfer of BP Original Guideline to MAGICApp

By November 1, 2018
- BP Work Group Meeting
- Evidence Reports Delivered to Diabetes Co-chairs

By December 1, 2018
- Cochrane Delivers Methods Chapter
- GN and BP Public Review
- Conference Call Presentation of Evidence to DM Work Group

# Timeline

By February 1, 2019
- Updated Literature Search Completed on BP and GN Updates
- Diabetes Work Group Meeting

By March 1, 2019
- Cochrane Delivers Methods Chapter
- DM Public Review
- Work Completed on any Required Changes in BP and GN Updates Following Public Review

By June 1, 2019
- Updated Literature Search Completed on Diabetes Guideline

By September 1, 2019
- Work Completed on any Required Changes in Diabetes Guideline Following Public Review

*All dates are tentative and subject to change.*