Virtual workshop series on GRADE methodology in supporting decision-making

Workshop 2- Guideline adaptation process

23rd November 2023

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AMERICAN UNIVERSITY OF BEIRUT

AUB GRADE CENTER

Disclosures

No benefits from industry

Consultations related to guideline development

Member of the GRADE working group

Acknowledgments

Ms. Joanne Khabsa for helping with the presentation and managing the questions in the chat box

Workshop 1 (30th October 2023)

- Overview of the GRADE methodology
- Key principles and concepts
- GRADE Evidence to Decision (EtD) framework
- Key considerations in developing EtD tables
- Case studies demonstrating the use of GRADE EtD

Three approaches to guideline development

- Standard development of own guidelines
- Adoption of source guidelines
- Adaptation of source guidelines

Decision making process

- Who is making the decision
- The options being considered
- Factors based on which decision is made
- Data based on which those factors are judged

1 **Desirable Effects**
How substantial are the desirable anticipated effects?

2 **Undesirable Effects**
How substantial are the undesirable anticipated effects?

3 **Certainty of evidence**
What is the overall certainty of the evidence of effects?

4 **Values**
Is there important uncertainty about or variability in how much people value the main outcomes?

5 **Balance of effects**
Does the balance between desirable and undesirable effects favor the intervention or the comparison?

Evidence on health effects

6 **Resources required**
How large are the resource requirements (costs)?

7 **Equity**
What would be the impact on health equity?

8 **Acceptability**
Is the intervention acceptable to key stakeholders?

9 **Feasibility**
Is the intervention feasible to implement?

Evidence on contextual factors

9 Acceptability

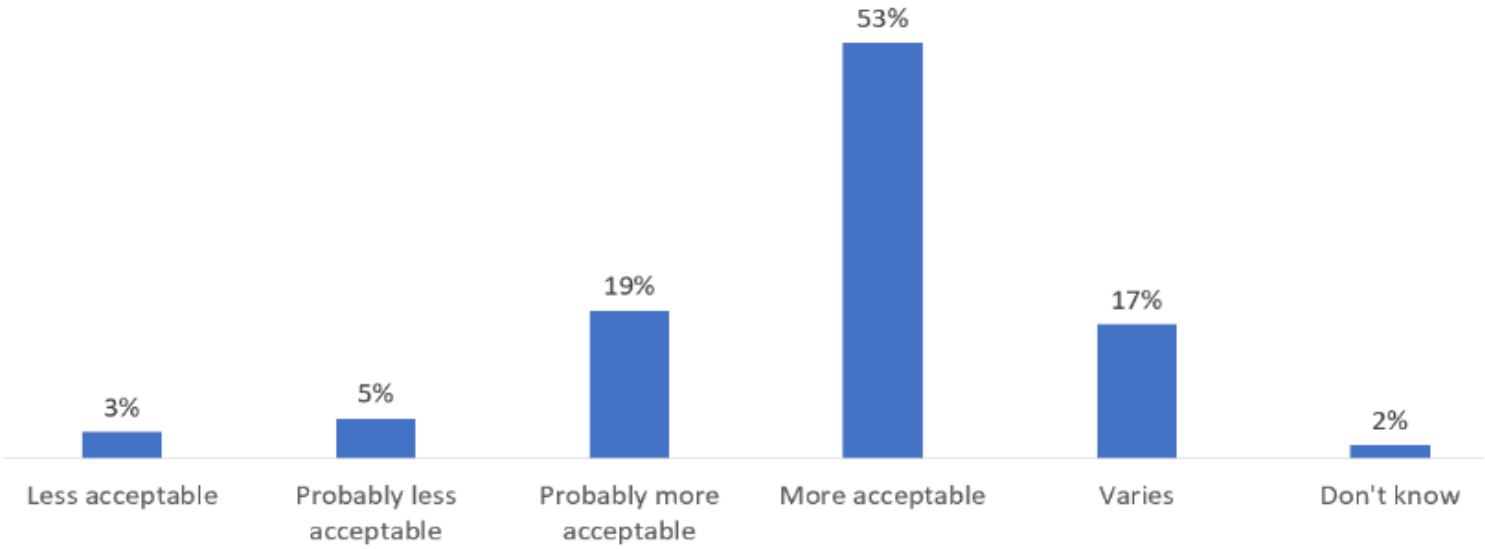
Is the intervention acceptable to key stakeholders?

JUDGEMENT

- ○ No
- ○ Probably no
- ○ Probably yes
- ◉ Yes
- ○ Varies
- ○ Don't know

Detailed judgements

Stakeholder mixed methods study



More acceptable/probably more acceptable (72% of survey participants; 5/6 of interview participants)

- Psychological effect (feeling of safety)
- Reduced transmission of EVD
- Protect from other diseases

Less acceptable/probably less acceptable (8% of survey participants; 1/6 interview participants

- Covering head and neck not needed if the skin is intact
- Covering head and neck would scare the patient

Varies (17% of survey participants)

- Risk should be evaluated

ADDITIONAL CONSIDERATIONS

Some practices are 'engrained'

- No: 0/14 (0%)
- Probably no: 0/14 (0%)
- Probably yes: 5/14 (36%)
- Yes: 7/14 (50%)
- Varies: 2/14 (14%)
- Don't know: 0/14 (0%)

CRITERIA	SUMMARY OF JUDGEMENTS							IMPORTANCE FOR DECISION
DESIRABLE EFFECTS	Trivial	**Small**	Moderate	Large		Varies	Don't know	
UNDESIRABLE EFFECTS	Large	**Moderate**	Small	Trivial		Varies	Don't know	
CERTAINTY OF EVIDENCE	**Very low**	Low	Moderate	High		No included studies		
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	**No important uncertainty or variability**				
BALANCE OF EFFECTS	Favors the comparison	**Probably favors the comparison**	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know	
RESOURCES REQUIRED	Large costs	**Moderate costs**	Negligible costs and savings	Moderate savings	Large savings	Varies	Don't know	
COST EFFECTIVENESS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	No included studies	
EQUITY	Reduced	**Probably reduced**	Probably no impact	Probably increased	Increased	Varies	Don't know	
ACCEPTABILITY	No	Probably no	Probably yes	**Yes**		Varies	Don't know	
FEASIBILITY	No	Probably no	**Probably yes**	Yes		Varies	Don't know	

TYPE OF RECOMMENDATION

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	**Conditional recommendation for the intervention**	Strong recommendation for the intervention
○	○	○	◉	○

Recommendation

WHO **suggests** covering head and neck skin and mucous membranes over covering only mucous membranes in health workers in direct contact and/or indirect contact with patients with EVD or Marburg virus in any setting (**conditional** recommendation, based on very low certainty evidence)

Decision to cover head and neck skin in addition to covering mucous membranes should be based on risk assessment

Groups more likely to benefit from covering head and neck skin in addition to covering mucous membranes include:

- *individuals with broken skin*
- *individuals working in wet areas*
- *individuals not vaccinated against the circulating species ???*

It is important to:

- consider the compatibility of different pieces of PPE
- ensure a common practice across team members
- provide proper training on the use of PPE
- make available PPE that is appropriate for people with certain hairstyles or beards or who wear headscarfs

Workshop 2 (23rd November 2023)

- What is guideline adaptation?

- The GRADE ADOLOPMENT methodology

What is guideline adaptation?

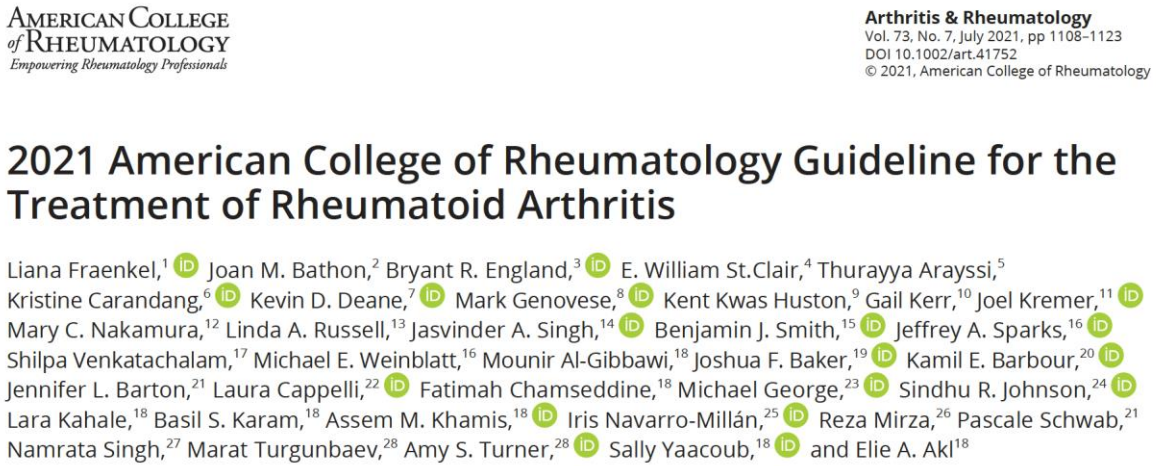
- Overview of guideline development and adaptation
- Pathways of adaptation
- Key steps and considerations

A tale of 2 guidelines

A source guideline

An adapted guideline

A tale of 2 guidelines



American College of Rheumatology
Empowering Rheumatology Professionals

Arthritis & Rheumatology
Vol. 73, No. 7, July 2021, pp 1108–1123
DOI 10.1002/art.41752

2021 American College of Rheumatology Guideline for the Treatment of Rheumatoid Arthritis

Liana Fraenkel,[1] Joan M. Bathon,[2] Bryant R. England,[3] E. William St.Clair,[4] Thurayya Arayssi,[5] Kristine Carandang,[6] Kevin D. Deane,[7] Mark Genovese,[8] Kent Kwas Huston,[9] Gail Kerr,[10] Joel Kremer,[11] Mary C. Nakamura,[12] Linda A. Russell,[13] Jasvinder A. Singh,[14] Benjamin J. Smith,[15] Jeffrey A. Sparks,[16] Shilpa Venkatachalam,[17] Michael E. Weinblatt,[16] Mounir Al-Gibbawi,[18] Joshua F. Baker,[19] Kamil E. Barbour,[20] Jennifer L. Barton,[21] Laura Cappelli,[22] Fatimah Chamseddine,[18] Michael George,[23] Sindhu R. Johnson,[24] Lara Kahale,[18] Basil S. Karam,[18] Assem M. Khamis,[18] Iris Navarro-Millán,[25] Reza Mirza,[26] Pascale Schwab,[21] Namrata Singh,[27] Marat Turgunbaev,[28] Amy S. Turner,[28] Sally Yaacoub,[18] and Elie A. Akl[18]

A source guideline

Omair *et al. BMC Rheumatology* (2022) 6:70
https://doi.org/10.1186/s41927-022-00301-y

BMC Rheumatology

RESEARCH Open Access

Recommendations for the treatment of rheumatoid arthritis in Saudi Arabia: adolopment of the 2021 American College of Rheumatology guidelines

Mohammed A. Omair[1*], Hanan Al Rayes[2*], Joanne Khabsa[3,4], Sally Yaacoub[3,4], Sultana Abdulaziz[5], Ghada A. Al Janobi[6], Abdulaziz Al Khalaf[1], Bader Al Mehmadi[7], Mahasin Al Nassar[8], Faisal AlBalawi[9], Abdullah S. AlFurayj[10], Ahmed Hamdan Al-Jedai[11,12], Haya Mohammed Almalag[13], Hajer Yousef Almudaiheem[11], Ali AlRehaily[14], Mohammed A. Attar[15], Lina El Kibbi[16], Hussein Halabi[17], Manal Hasan[18], Jasvinder A. Singh[19,20,21], Liana Fraenkel[22,23] and Elie A. Akl[24,25]

An adapted guideline

How do the two guidelines compare?

- Timeline
- Number of recommendations
- Data gathering
- Logistics
- Costs
- Modifications

Timeline

	Project start	Start to drafting	Start to submission	Start to publication
ACR	Aug 2018	17 months	31 months	35 months
SSR				

Timeline

	Project start	Start to drafting	Start to submission	Start to publication
ACR	Aug 2018	17 months	31 months	35 months
SSR	Oct 2021	3 months	6 months	14 months

Number of recommendations

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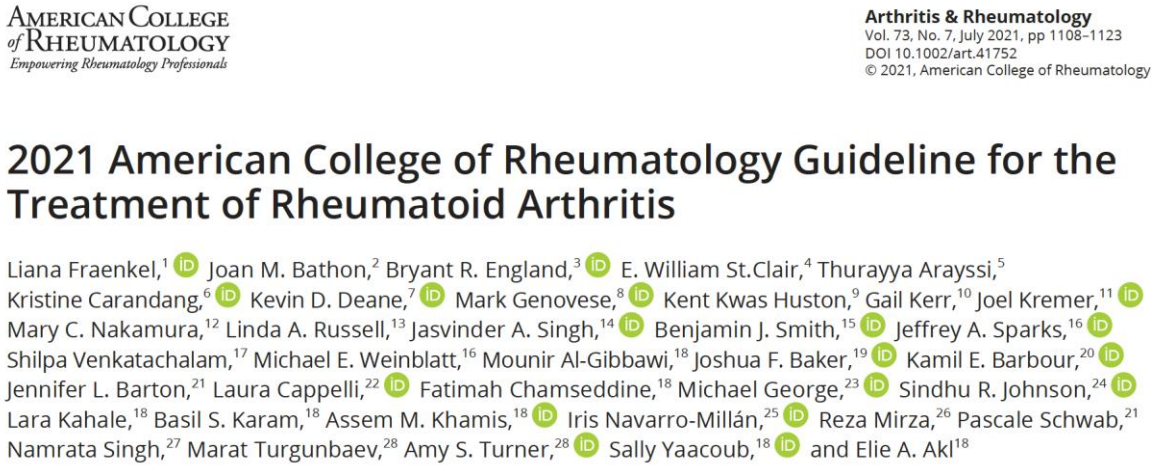
- 81 recommendations developed →
- → 5 recommendations adapted

Number of recommendations



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- 81 recommendations developed

- 5 recommendations adapted
- 76 recommendations adopted as is

Data gathering; ACR

- ❑ ACR Systematic reviews on the health effects of interventions
- ❑ ACR Systematic reviews on harms
- ❑ ACR Systematic review on Minimal Important Difference (MID)
- ❑ ACR Systematic reivew on values and preferences
- ❑ ACR Data on cost
- ❑ ACR Data on cost effectiveness

Which ones of these evidence gathering efforts did the Saudi Panel decide to reuse?

Data gathering; ACR

- ❑ ACR Systematic reviews on the health effects of interventions
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Data gathering; SSR

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Data gathering; SSR

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Data gathering; SSR

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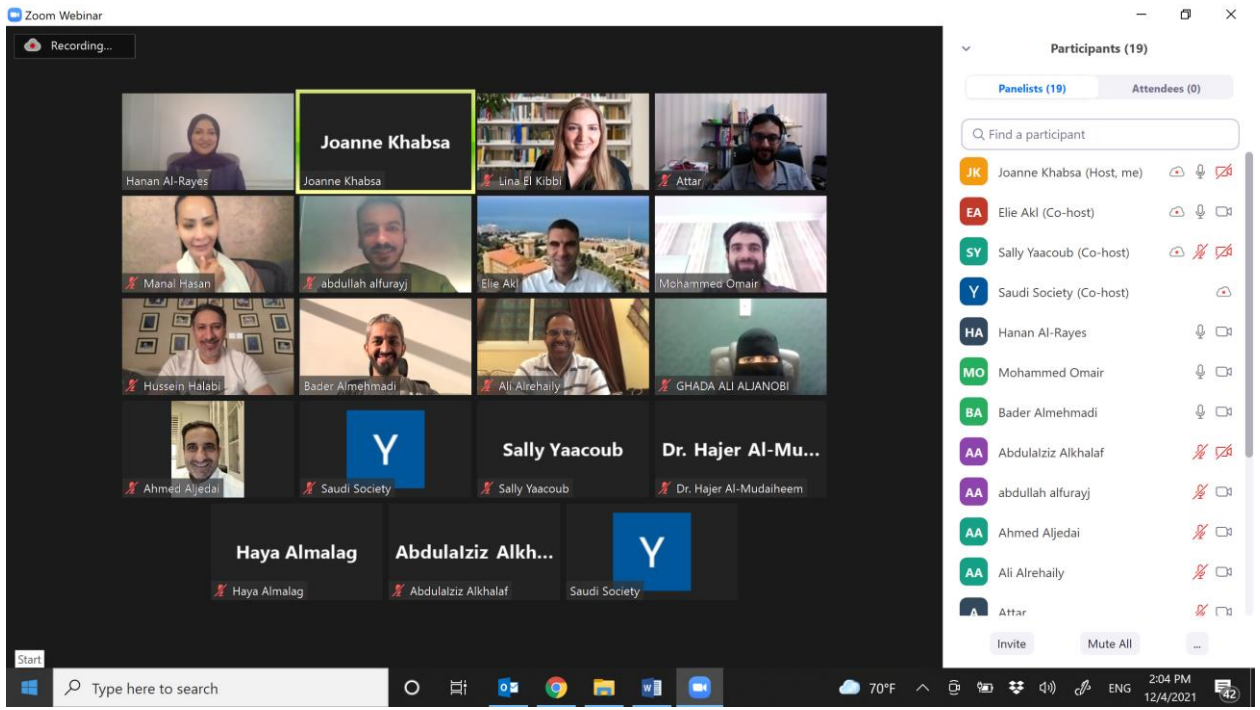
- ❑ ACR Data on cost
- ❑ ACR Data on cost effectiveness
- ➢ SSR Data on cost
- ➢ SSR Data on cost effectiveness
- ➢ SSR search for new studies published since ACR

Costs

- ACR?

- SSR?

Logistics


Zoom Webinar
Recording...
Participants (19)
Panelists (19)
Attendees (0)
Find a participant
Joanne Khabsa (Host, me)
Elie Akl (Co-host)
Sally Yaacoub (Co-host)
Saudi Society (Co-host)
Hanan Al-Rayes
Mohammed Omair
Bader Almehmadi
Abdulaziz Alkhalaf
abdullah alfurayj
Ahmed Aljedai
Ali Alrehaily
Attar
Invite
Mute All
Hanan Al-Rayes
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abdullah alfurayj
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GHADA ALI ALJANOBI
Ahmed Aljedai
Saudi Society
Sally Yaacoub
Dr. Hajer Al-Mudaiheem
Haya Almalag
Abdulaziz Alkhalaf
Saudi Society
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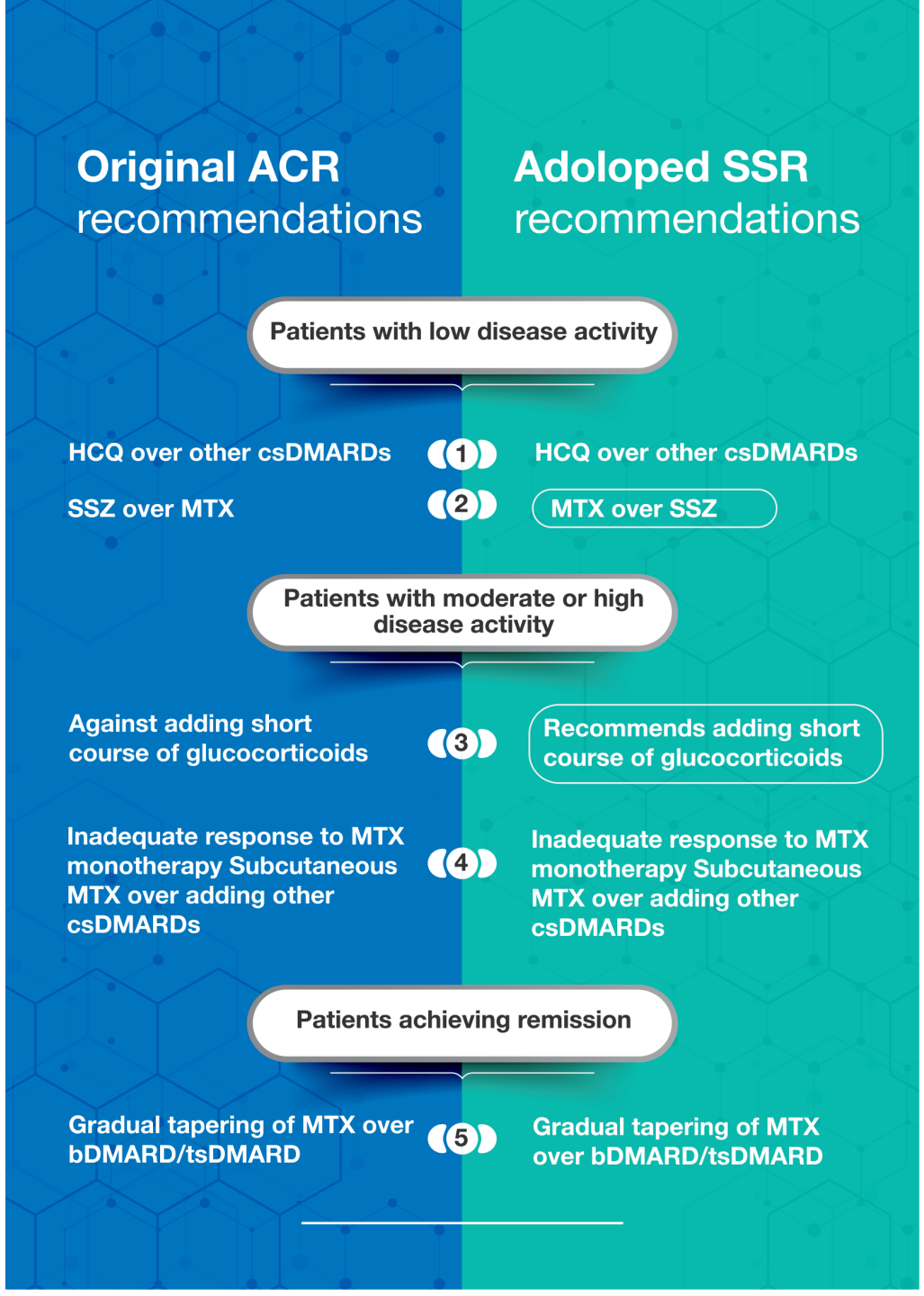
Modifications



Sulfasalazine is conditionally recommended over Methotrexate for DMARD-naïve patients with low disease activity

The Saudi panel suggests using methotrexate (MTX) over sulfasalazine (SSZ) in DMARD-naive patients with low disease activity (conditional recommendation; based on very low certainty evidence).

Sulfasalazine is conditionally recommended over Methotrexate for DMARD-naïve patients with low disease activity

The Saudi panel suggests using methotrexate (MTX) over sulfasalazine (SSZ) in DMARD-naive patients with low disease activity (conditional recommendation; based on very low certainty evidence).

Remarks

Sulfasalazine is recommended over methotrexate because it is less immunosuppressive, and the patient panel felt that many patients with low disease activity would prefer to avoid the side effects associated with methotrexate. The recommendations are conditional because methotrexate may be the preferred initial therapy in patients at the higher end of the low disease activity range and in those with poor prognostic factors (11).

- Recommendation modified (from conditional in favor of SSZ to conditional in favor of MTX); certainty of evidence unmodified.
- This recommendation applies to patients with low disease activity for which medication treatment is judged to be necessary.
- The choice should account for the patient's views on the expected benefits and harms of the respective medications.
- The choice should consider the availability of the medications.
- It is important to monitor adverse events and adjust medications accordingly.

Rationale: The panel favored MTX over SSZ because of the dosing convenience of MTX (once weekly) and its lower cost compared with SSZ.

Contextual considerations of side effects

- SSR panel was less concerned than ACR panel about the hepatotoxic side effects of methotrexate in relation to alcohol use is not a concern in KSA

- SSR panel was more attentive than ACR panel to the potential side effects of hydroxychloroquine given higher prevalence of G6PD deficiency in KSA

A tale of two guidelines

- Compared to development of own guidelines, adaptation
  - Requires less time
  - Requires less financial and non-financial resources
  - Allows less control over questions addressed
  - Allows less control over methodology used

- Compared to adoption, adaptation
  - Leads to more contextualized recommendations
  - Requires more time and resources

What are the advantages of adaptation?

- Efficiency
- Contextualization

Optimizing guideline adaptation

- Efficient use of existing guidelines and systematic reviews
- Contextualization of recommendations

→ GRADE Adolopment was designed to achieve these two goals

ELSEVIER

CrossMark

Journal of Clinical Epidemiology 86 (2017) 3–10

Journal of Clinical Epidemiology

REVIEWS

A methodological survey identified eight proposed frameworks for the adaptation of health related guidelines

Andrea Darzi[a,b], Elias A. Abou-Jaoude[c], Arnav Agarwal[d], Chantal Lakis[e], Wojtek Wiercioch[d], Nancy Santesso[d], Hneine Brax[f], Fadi El-Jardali[b,d,g], Holger J. Schünemann[d,h], Elie A. Akl[a,b,d,h,i,*]

Adaptation frameworks

- ADAPTE is one of the earlier frameworks

- However, ADAPTE predates major advancements in guidelines methodology, particularly in relation to:
  - Certainty of evidence assessment
  - Contextualization

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Journal of Clinical Epidemiology 81 (2017) 101–110

Journal of Clinical Epidemiology

GRADE Evidence to Decision (EtD) frameworks for adoption, adaptation, and de novo development of trustworthy recommendations: GRADE-ADOLOPMENT

Holger J. Schünemann[a,b,*], Wojtek Wiercioch[a], Jan Brozek[a,b], Itziar Etxeandia-Ikobaltzeta[a], Reem A. Mustafa[a,c,d], Veena Manja[e,f], Romina Brignardello-Petersen[g,h], Ignacio Neumann[a,i], Maicon Falavigna[j,k], Waleed Alhazzani[a,b], Nancy Santesso[a], Yuan Zhang[a], Jörg J. Meerpohl[l,m], Rebecca L. Morgan[a], Bram Rochwerg[a], Andrea Darzi[d], Maria Ximenas Rojas[n], Alonso Carrasco-Labra[a,i], Yaser Adi[o], Zulfa AlRayees[p], John Riva[a,q], Claudia Bollig[l], Ainsley Moore[a,q], Juan José Yepes-Nuñez[a], Carlos Cuello[a,r], Reem Waziry[s,t], Elie A. Akl[a,s]

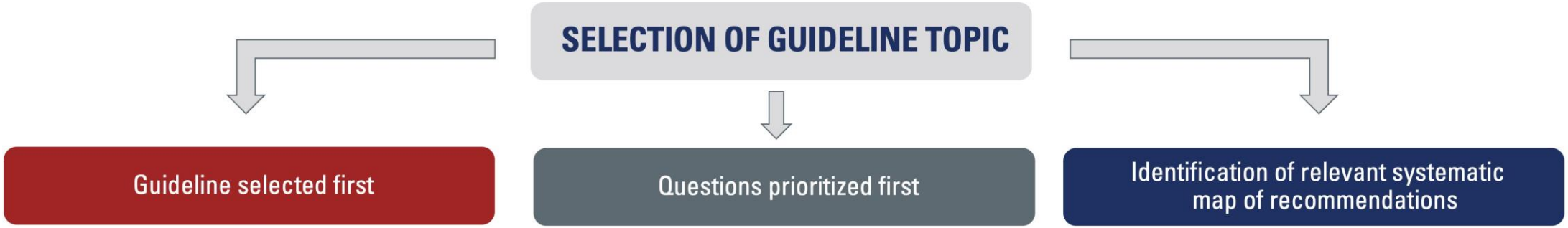
GRADE Adolopment

- Integrates: adoption, adaptation, and de novo development

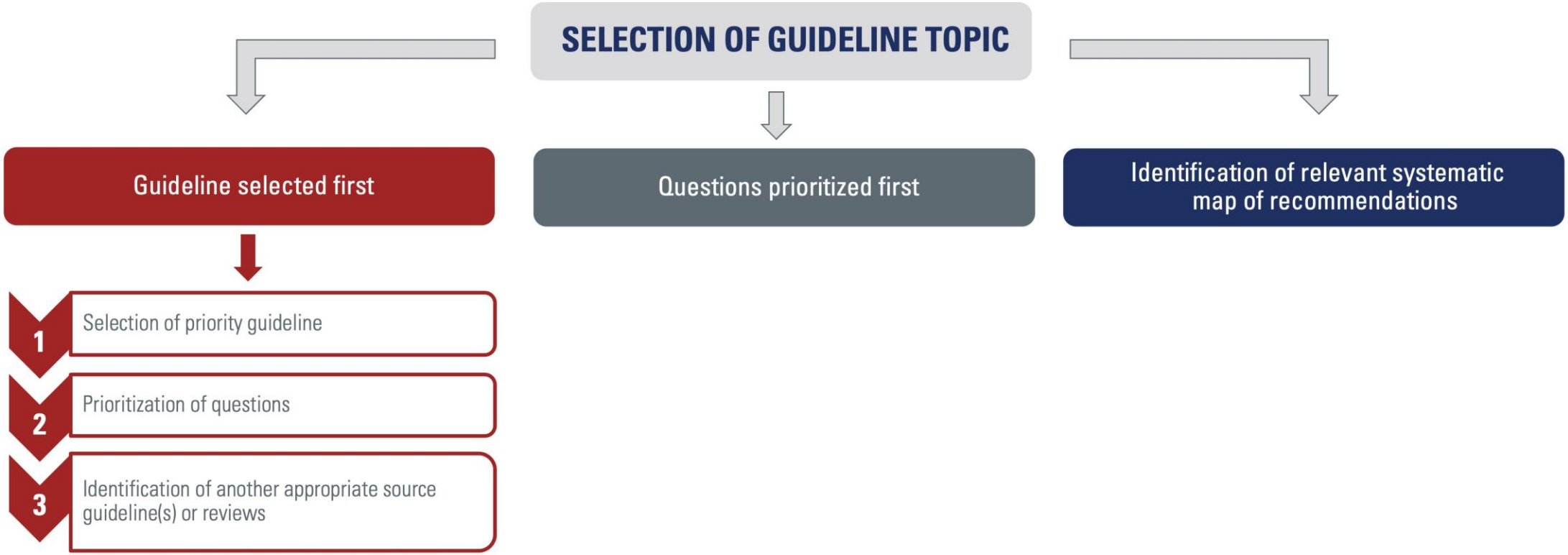
- Uses GRADE Evidence to Decision (EtD) tables for contextualization:
  - Local epidemiology
  - Values and preferences
  - Resource use
  - Feasibility
  - Acceptability
  - impact on health equity

Adaptation pathways

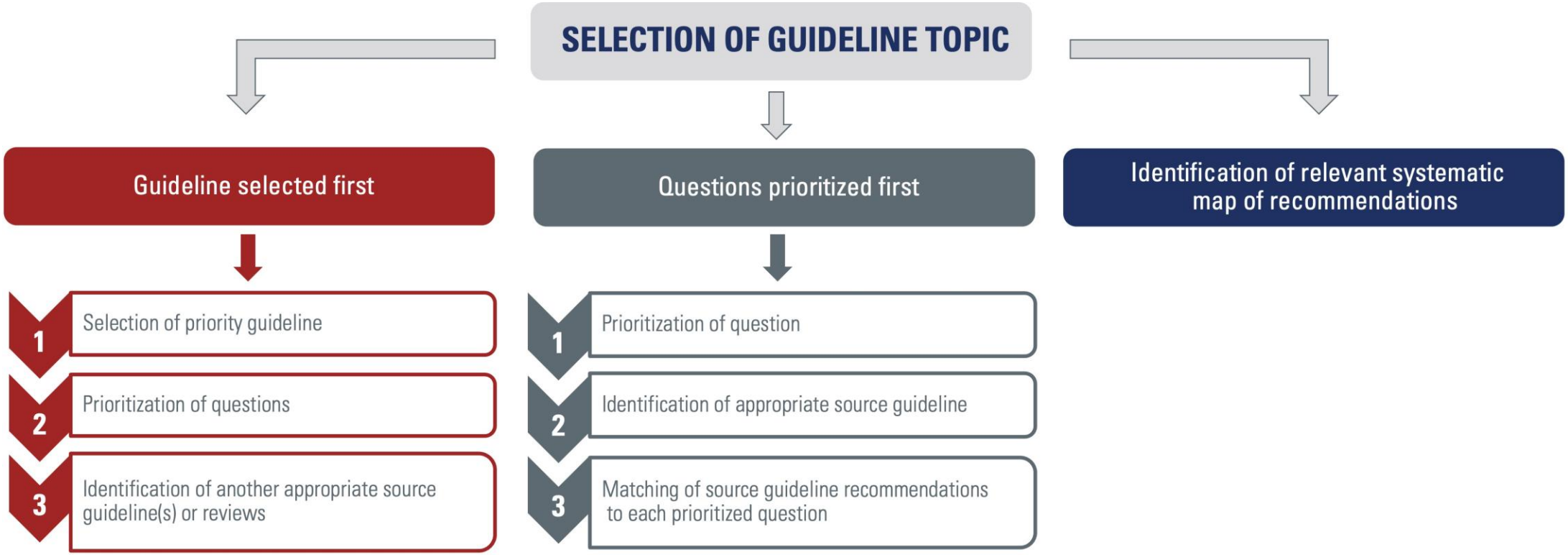
Adaptation pathways



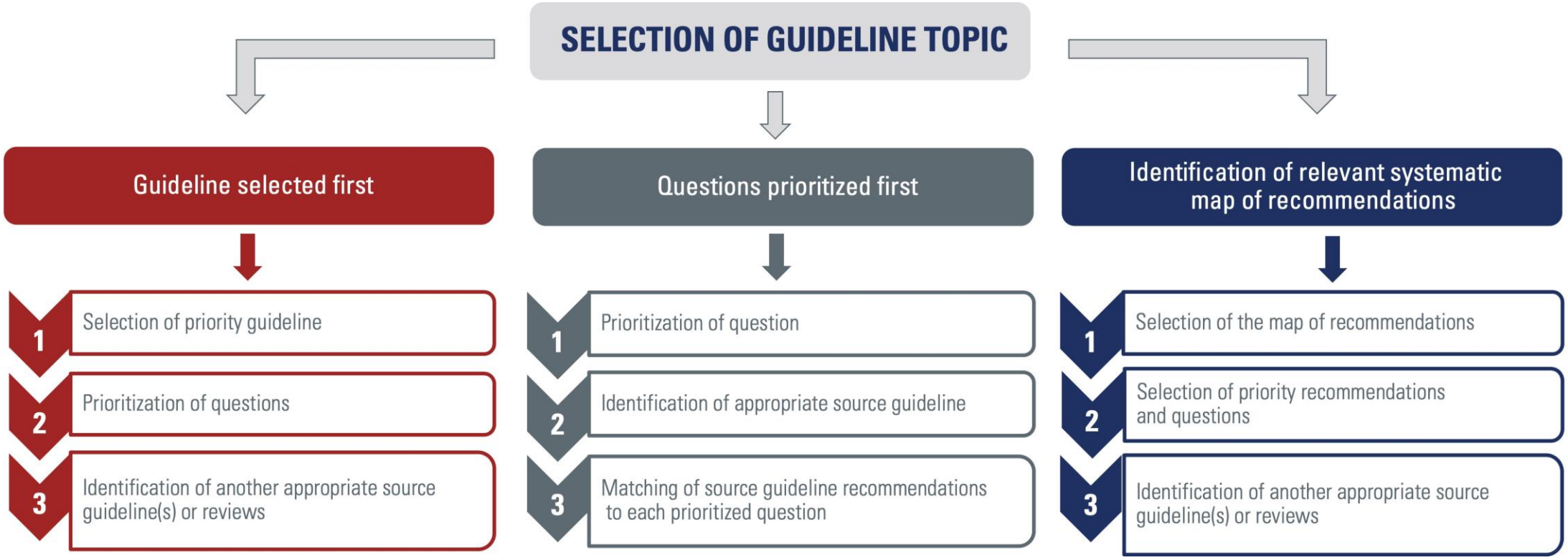
Adaptation pathways



Adaptation pathways



Adaptation pathways



GRADE-ADOLOPMENT example

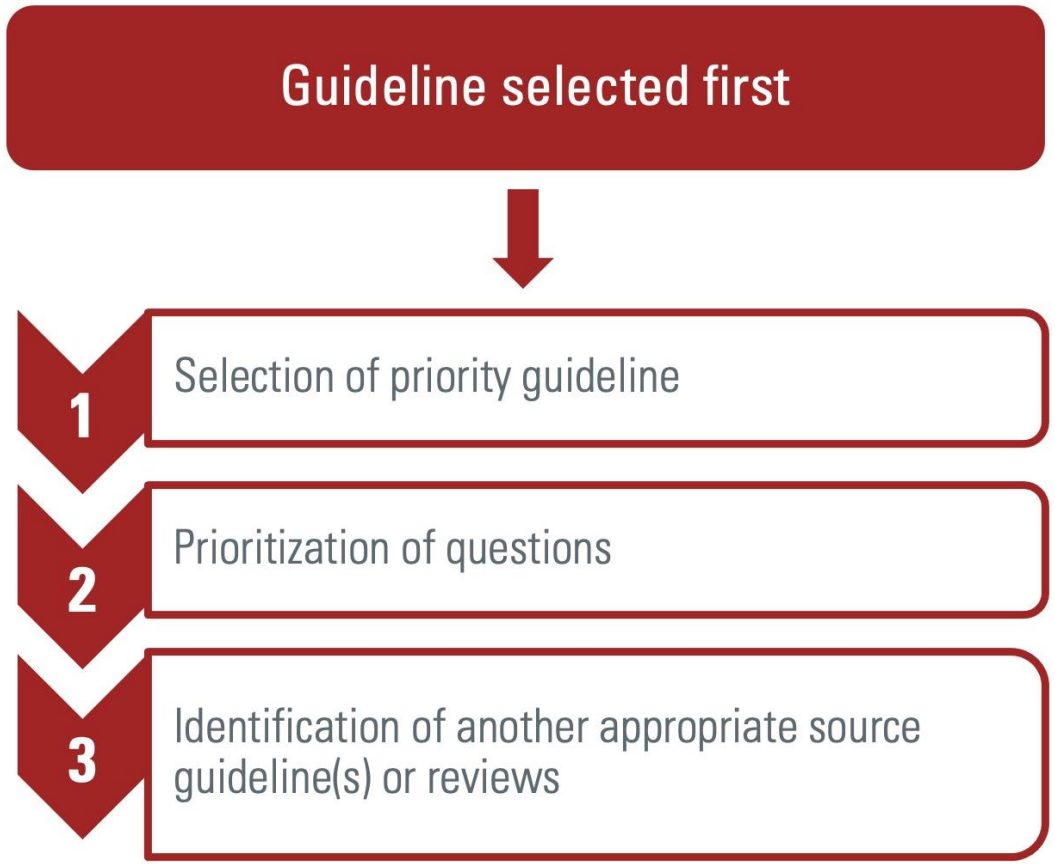
CLINICAL GUIDELINES

blood advances

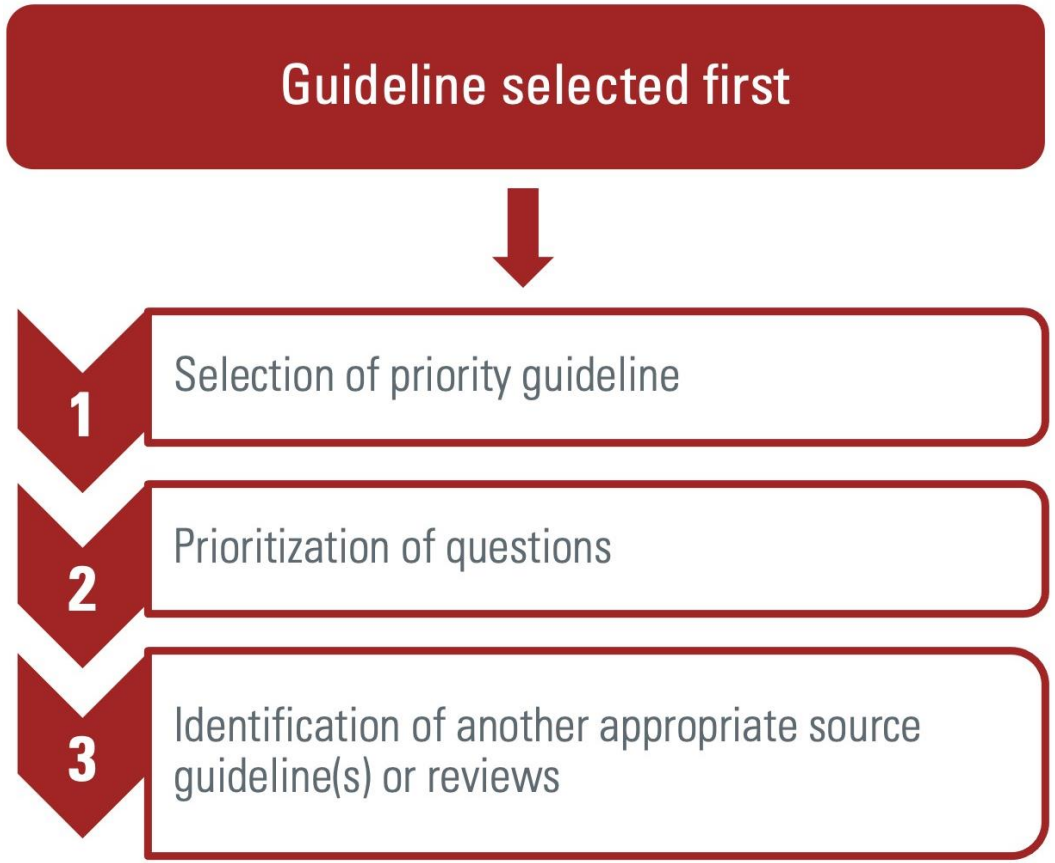
Check for updates

ASH, ABHH, ACHO, Grupo CAHT, Grupo CLAHT, SAH, SBHH, SHU, SOCHIHEM, SOMETH, Sociedad Panameña de Hematología, SPH, and SVH 2021 guidelines for management of venous thromboembolism in Latin America

Ignacio Neumann,[1] Ariel Izcovich,[2] Ricardo Aguilar,[3] Guillermo León Basantes,[4] Patricia Casais,[5,6] Cecilia C. Colorio,[7] María Cecilia Guillermo Esposito,[8] Pedro P. García Lázaro,[9,10] Luis A. Meillon-García,[11] Jaime Pereira,[12] Suely Meireles Rezende,[13] Juan Carlos Serrano,[14] Mario L. Tejerina Valle,[15] Felipe Vera,[16] Lorena Karzulovic,[17] Gabriel Rada,[1] and Holger Schünemann[18]



"The methods team, together with ASH, decided to select ***4 of the original VTE guidelines*** *for a first round of adaptation: Treatment of Deep Vein Thrombosis and Pulmonary Embolism; Anticoagulation Therapy; Prevention in Surgical Patients; and Prophylaxis for Medical Patients.* ***The selection of these specific guidelines was informed by priorities expressed by the Latin American partner societies and the status and publication timeframes of the source guidelines.***"



Criteria to inform prioritization of guideline questions

- It commonly arises in practice
- There is uncertainty in practice with regard to the management of patients
- There is new research evidence to consider
- It is associated with variation in practice
- It has important consequences for, or is associated with, high resource use or costs

Systematic maps of recommendations

- eCOVID19 RecMap
  - https://covid19.recmap.org/

- WHO eTB Guidelines
  - https://who.tuberculosis.recmap.org/

COVID19 Recommendations

Enter the keyword to search in recommendations

Search instructions

Recommendations map

Would you like to learn more about a specific population and/or intervention? You can easily find topics that interest you using our RecMap.

Recommendations map

List of recommendations

Explore all available COVID-19 guidelines on the eCOVID19 RecMap platform. You can filter and narrow down your search results using the search bar.

Recommendations

Plain Language Recommendations

Looking for COVID-19 recommendations that are easy to understand? Click here to access a selection of our plain language recommendations.

Plain Language Recommendations

COVID19 Recommendations

Share your feedback!

Recor

Enter the keyword to search in recommendations

Search and map instructions

All	Infection control	Vaccination	Screening	Diagnosis	Treatment and rehabilitation	Prognosis	Planning and monitoring	Health services and systems
COVID-19 confirmed 3487	488	55	81	168	2283	14	197	201
Patient 1940	321	183	95	132	923	3	115	166
Healthcare professional 1253	616	134	58	76	98	1	40	230
COVID-19 suspected 1027	370	15	102	215	163	3	49	110
Public 1014	382	253	35	83	37		74	150
Hospital 871	122	15	30	61	532	3	33	74
Healthcare facility 666	289	18	43	28	35		39	214
Child 640	101	126	25	32	283	3	28	42
Chronic post-COVID-19 syndrome 521	4	5	17	79	279	2	42	93
Adult 502	94	132	15	18	193		22	27
Healthcare services 485	164	22	12	46	40		21	179

Irrespective of the pathway…

- …there is a need to choose a guideline to use in the adaptation process

- How to choose a source guideline?

→ assess guideline adaptability

Guideline Adaptability

- The extent to which the adaptation of a source guideline to a planned guideline project requires less resources and allows a better contextualization

- What characteristics increase the adaptability of a source guieline?

Guideline Adaptability

- Relevance to the adaptation project
- Quality of the guideline
- Up-To-Dateness
- Whether source guideline was developed used GRADE
- Clarity on how contextual factors affected source recommendations

Guideline Adaptability

- Relevance to the adaptation project in terms of:
  - The overall objective(s) of the guideline
  - The target audience
  - The health question(s) covered
  - The outcomes considered

- Key factor
- Not easily remediable

Guideline Adaptability

- Quality of the guideline
  - Measuerd on the AGREE II score, particualrly the domains of riguor of development and editorial independence)

- Key factor
- Not remediable

Guideline Adaptability

- Up-To-Dateness
  - Whether potentially consequential evidence on the health effects has emerged since the literature search iew was conducted for the source guideline
  - Depends on how much time elaspsed since the literature search and how ’hot’ the topic is
  - Might require a quick literature search

- Key factor
- Remediable

Guideline Adaptability

- Whether source guideline developed used GRADE
  - GRADE used to assess certainty of evidence and for developing recommendations
  - GRADE tables are available

- Key factor
- Not easily remediable

Clarity on how contextual factors affected source recommendations

- It is important for the guideline group to understand how the direction and strength of the recommendation in the source guideline was affected by contextual factors (e.g., cost, acceptability and feasiblity)

- Key factor
- Not easily remediable

Guideline Adaptability

- Relevance to the adaptation project
- Quality of the guideline
- Up-To-Dateness
- Whether source guideline developed using GRADE
- Clarity on how contextual factors affected source recommendations

Guideline Adaptability

- Final note: Asssess whether the work to improve the adaptatiblity of the guideline (e.g., updating liteature searches) would be better spent to develop own guidelines

Thank you!

The GRADE ADOLOPMENT methodology

- Evidence to Decision (EtD) framework
- Challenges and benefits

Goals of guideline adaptation

- Efficient use of existing guidelines and systematic reviews
- Contextualization of recommendations

→ GRADE Adolopment was designed to achieve these two goals

GRADE-ADOLOPMENT

ELSEVIER CrossMark

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Journal of Clinical Epidemiology

GRADE Evidence to Decision (EtD) frameworks for adoption, adaptation, and de novo development of trustworthy recommendations: GRADE-ADOLOPMENT

Holger J. Schünemann[a,b,*], Wojtek Wiercioch[a], Jan Brozek[a,b], Itziar Etxeandia-Ikobaltzeta[a], Reem A. Mustafa[a,c,d], Veena Manja[e,f], Romina Brignardello-Petersen[g,h], Ignacio Neumann[a,i], Maicon Falavigna[j,k], Waleed Alhazzani[a,b], Nancy Santesso[a], Yuan Zhang[a], Jörg J. Meerpohl[l,m], Rebecca L. Morgan[a], Bram Rochwerg[a], Andrea Darzi[d], Maria Ximenas Rojas[n], Alonso Carrasco-Labra[a,i], Yaser Adi[o], Zulfa AlRayees[p], John Riva[a,q], Claudia Bollig[l], Ainsley Moore[a,q], Juan José Yepes-Nuñez[a], Carlos Cuello[a,r], Reem Waziry[s,t], Elie A. Akl[a,s]

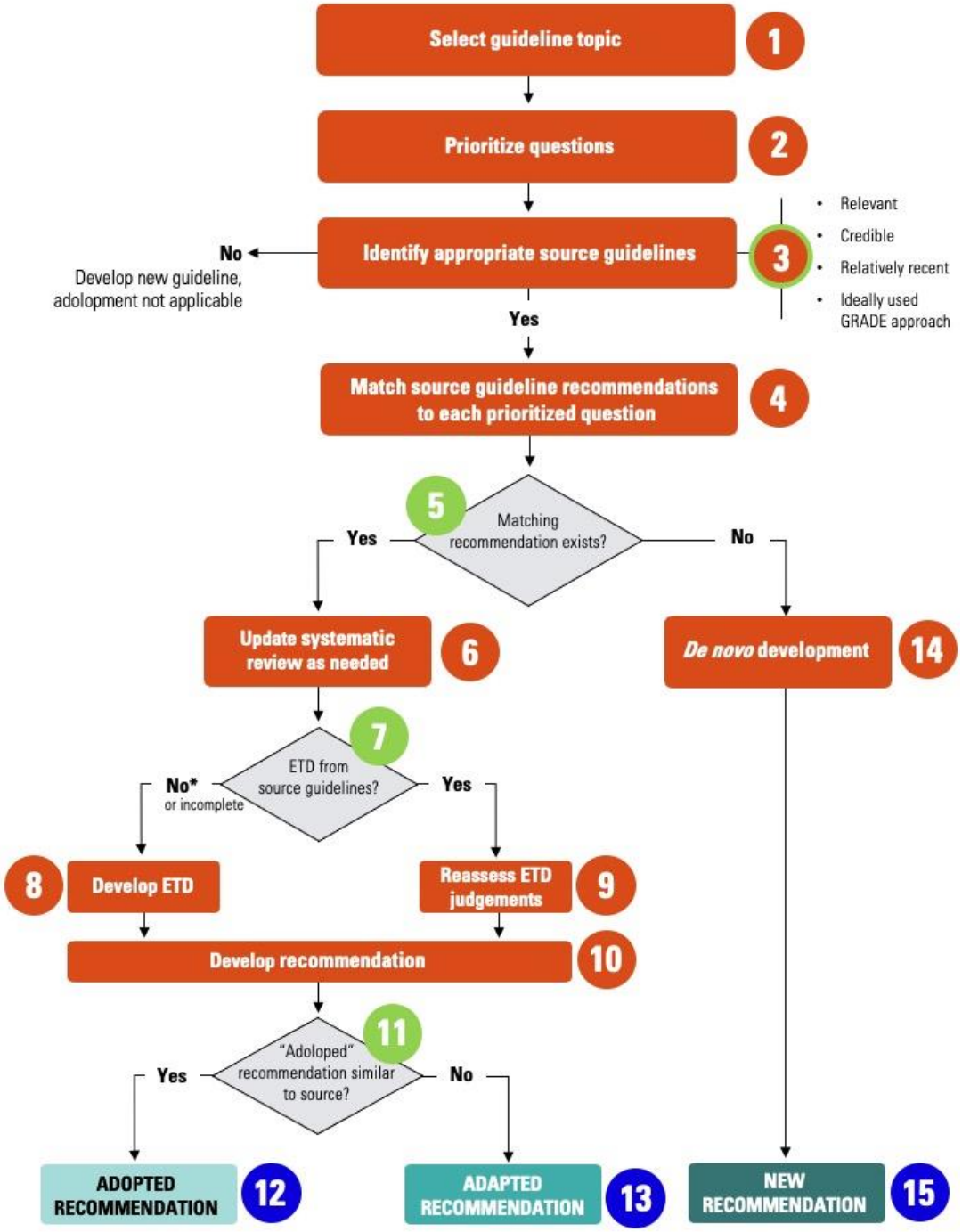
Adolopment combines the options to increase efficiency in guideline development

Adoption
Use of an existing recommendation either unmodified or with minimal changes.

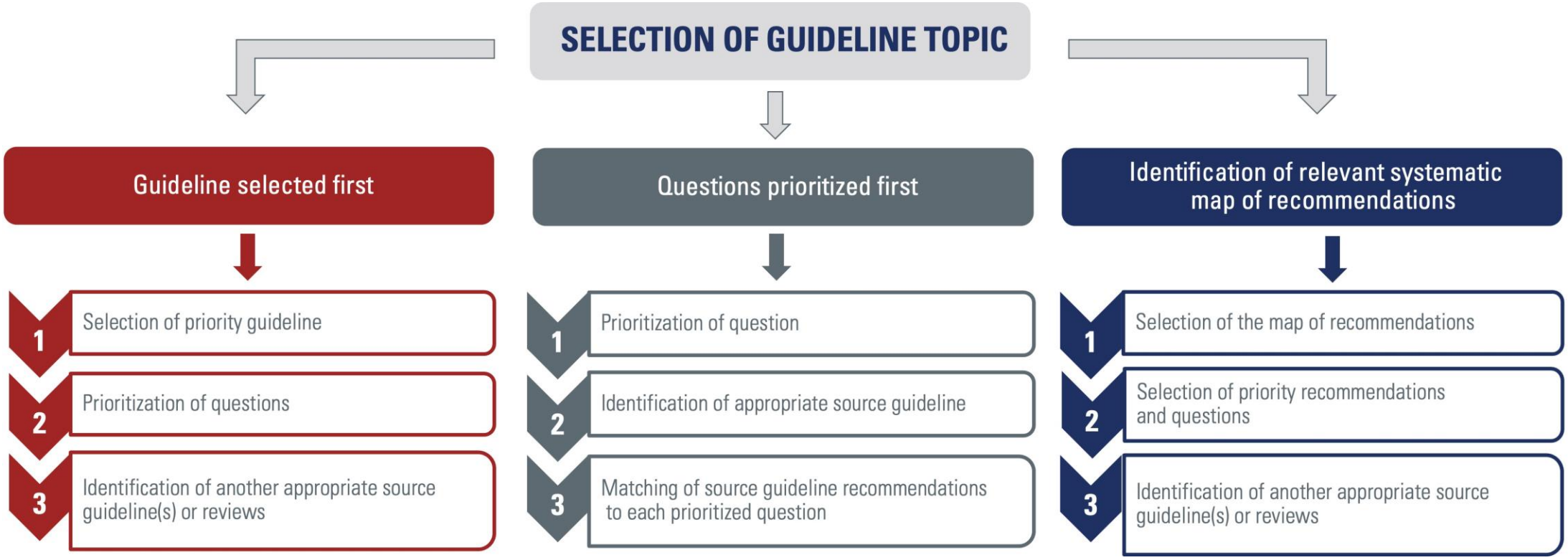
Adaptation
Reliable recommendation that meet the established criteria for credibility exists but the judgements on the criteria that support the recommendation, or the recommendation itself, require updates or changes to be implemented for the health-care setting of interest.

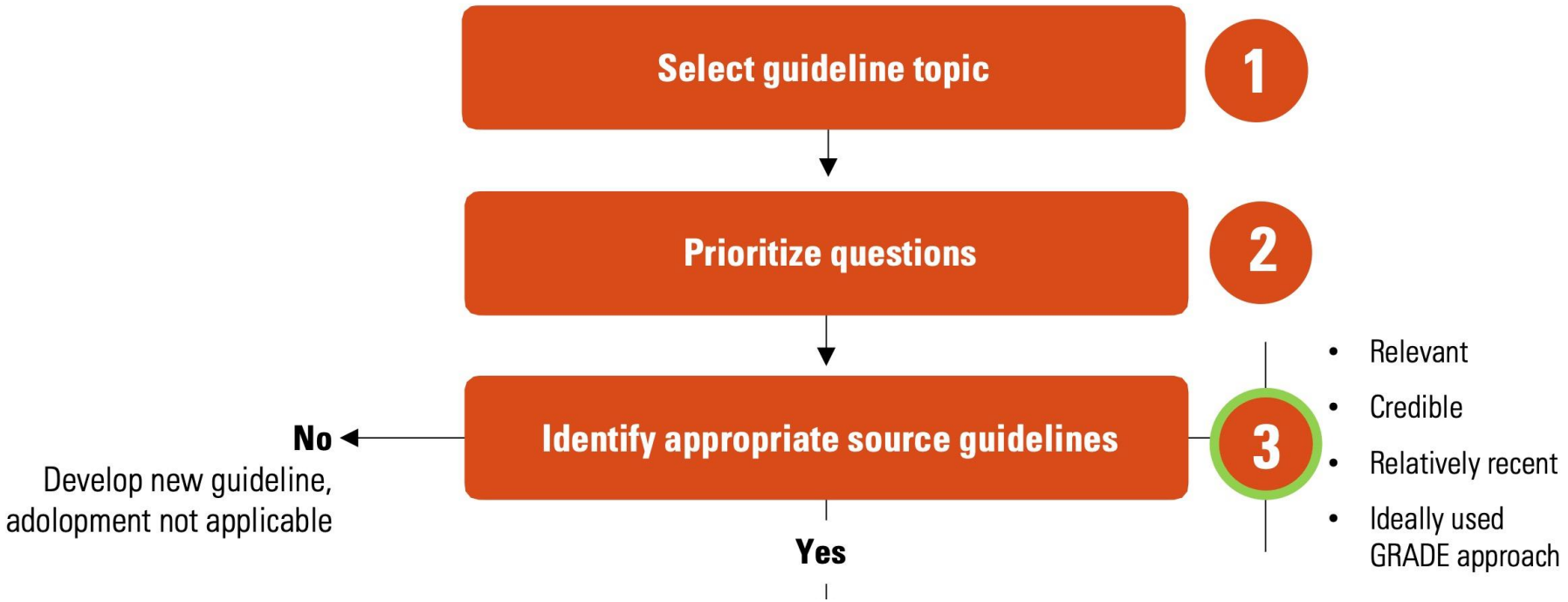
De novo synthesis
Formulating trustworthy recommendations for new prioritized questions that source guideline(s) do not answer.

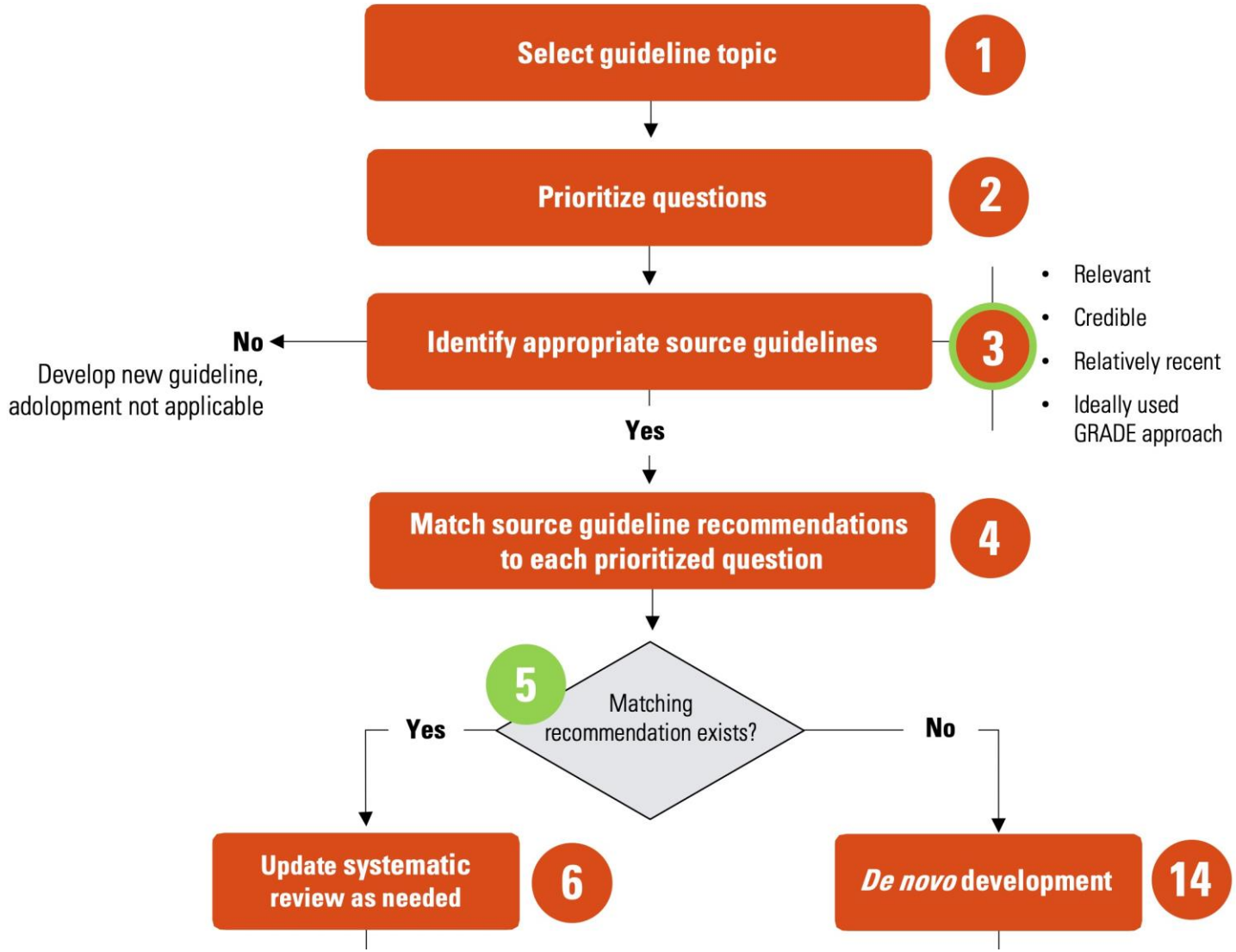
The GRADE-ADOLOPMENT Approach

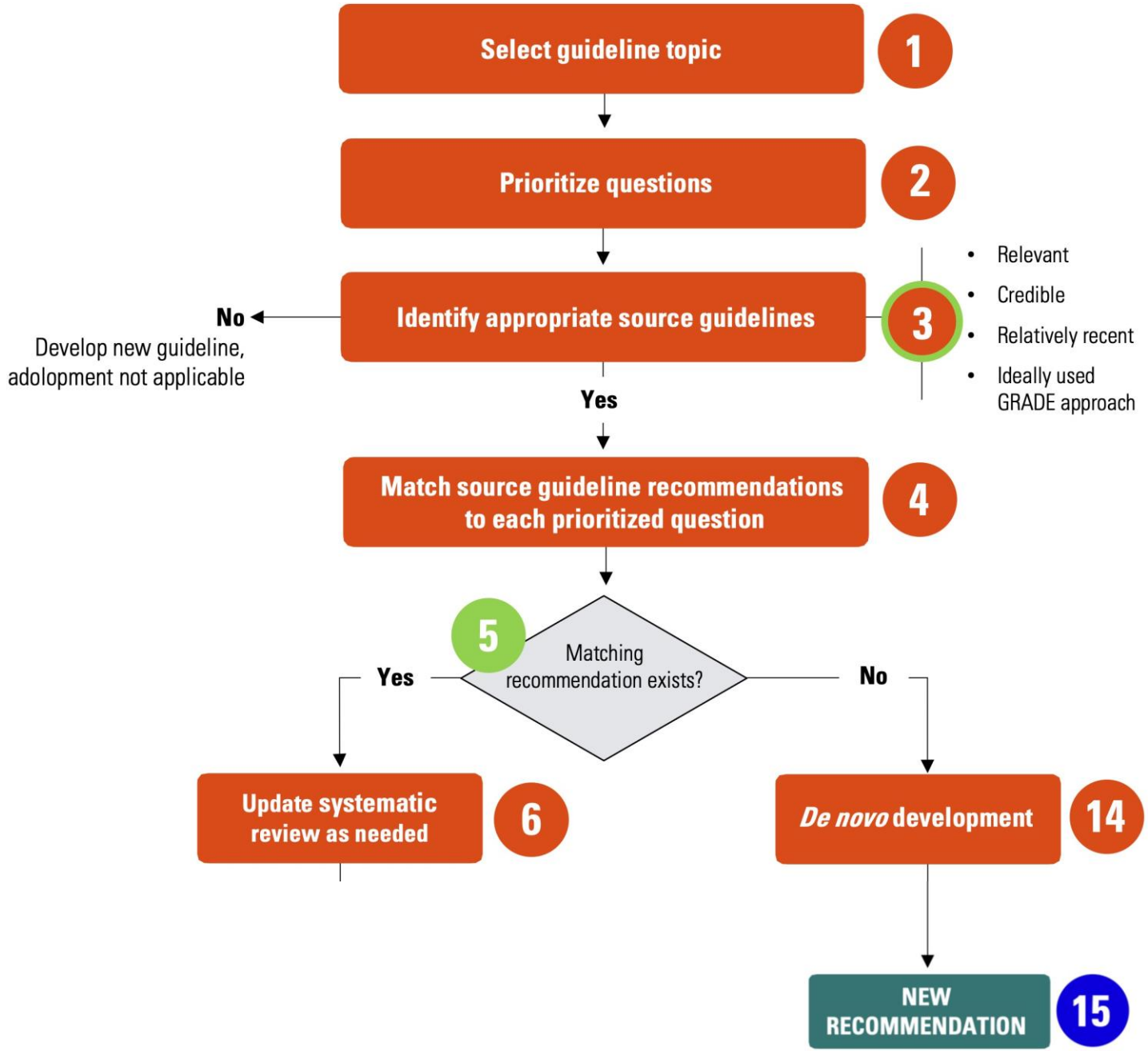


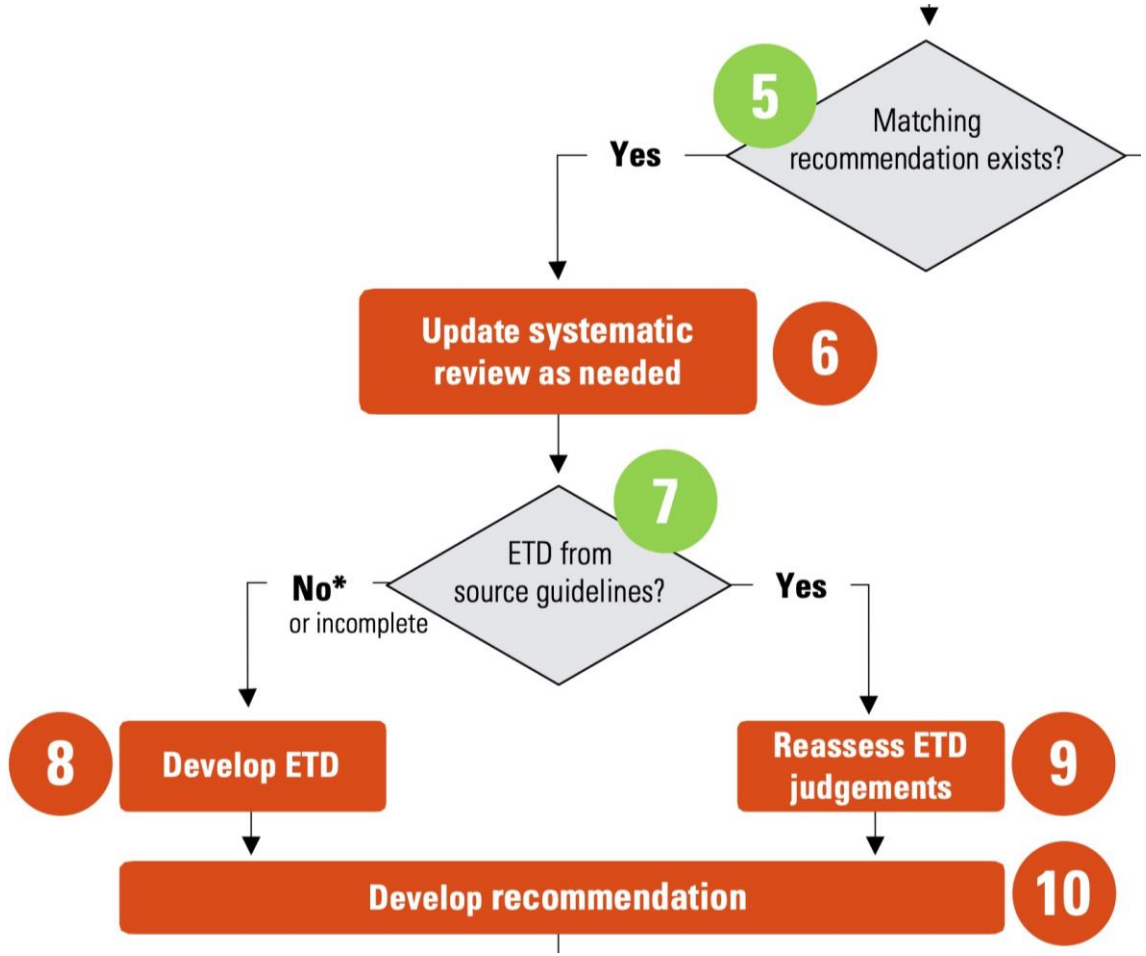
Adaptation pathways

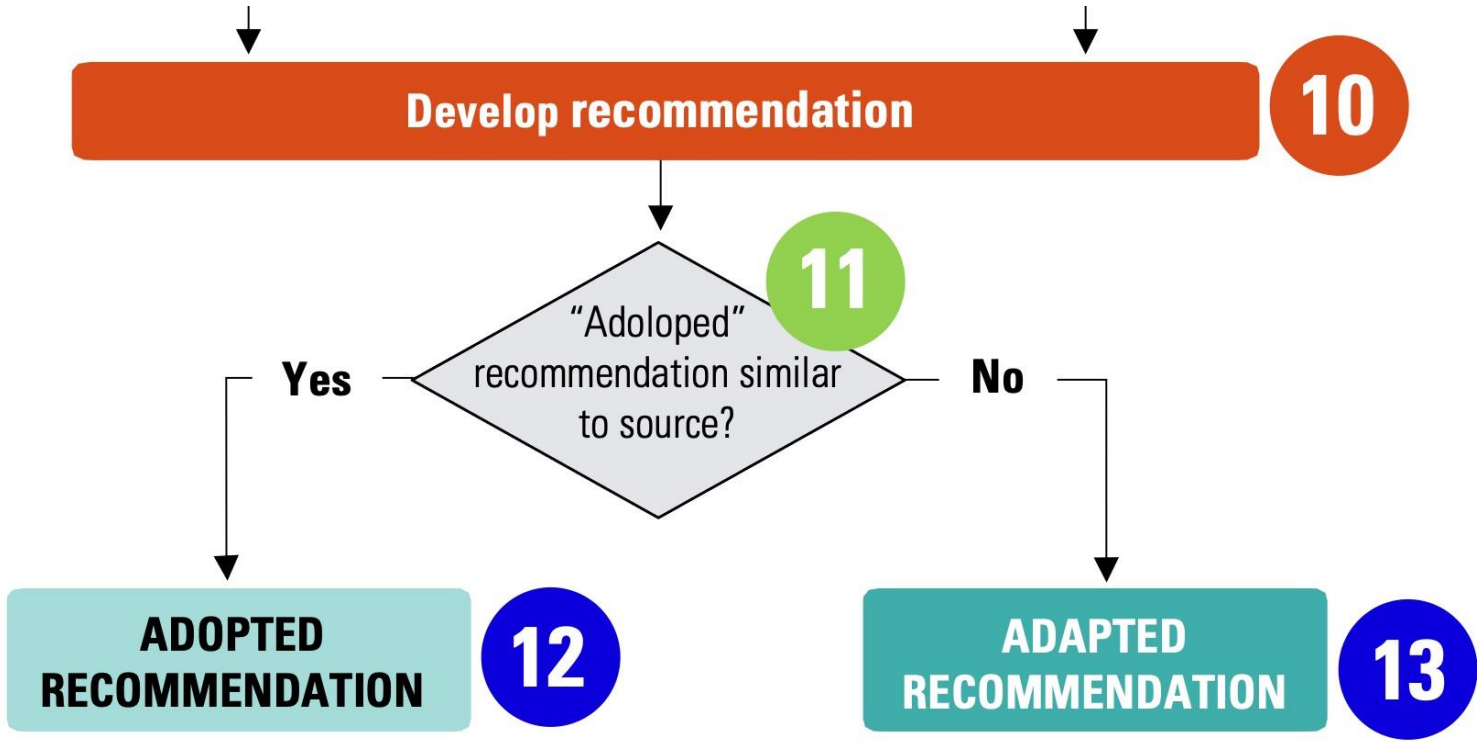



Select guideline topic
1
Prioritize questions
2
Identify appropriate source guidelines
3
No
Develop new guideline, adolopment not applicable
Yes
Relevant
Credible
Relatively recent
Ideally used GRADE approach


Select guideline topic
1
Prioritize questions
2
Identify appropriate source guidelines
3
Relevant
Credible
Relatively recent
Ideally used GRADE approach
No
Develop new guideline, adolopment not applicable
Yes
Match source guideline recommendations to each prioritized question
4
5
Matching recommendation exists?
Yes
No
Update systematic review as needed
6
De novo development
14


Select guideline topic
1
Prioritize questions
2
Identify appropriate source guidelines
3
Relevant
Credible
Relatively recent
Ideally used GRADE approach
No
Develop new guideline, adolopment not applicable
Yes
Match source guideline recommendations to each prioritized question
4
5
Matching recommendation exists?
Yes
No
Update systematic review as needed
6
De novo development
14
NEW RECOMMENDATION
15


5
Matching recommendation exists?
Yes
Update systematic review as needed
6
7
ETD from source guidelines?
No*
or incomplete
Yes
8
Develop ETD
Reassess ETD judgements
9
Develop recommendation
10


Develop recommendation
10
11
"Adoloped" recommendation similar to source?
Yes
No
ADOPTED RECOMMENDATION
12
ADAPTED RECOMMENDATION
13

GRADE ADOLOPMENT

- Efficiency

- Contextualization

Contextual factors

Contextual factors become more important when the certainty of evidence about health effects if low or very low

Importance of contextual factors

- A management option could be effective and safe, but
  - Not acceptable to key stakeholders
  - Not feasible
  - Not affordable

- This would limit its ‘implementability’ and subsequently limit the expected desirable consequences

Importance of contextual factors

- If acceptability (or feasibility, or cost) varies across settings within the jurisdiction

→ include condition to consider these factors when interpreting the recommendation

→ consider the implications for the implementation considerations

Exercise

- Review how the panel of the source recommendation judged each of the EtD factors
  - ➢ Reflect on what factors drove the source recommendation

- Consider how the local context is different
  - ➢ Reflect how the strength and direction of the adapted recommendation could be modified accordingly

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	Small	**Moderate**	Large	
UNDESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large	
CERTAINTY OF EVIDENCE	Very low	Low	**Moderate**	High	
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	**No important uncertainty or variability**	
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	**Favors the intervention**
RESOURCES REQUIRED	Large costs	Moderate costs	**Negligible costs and savings**	Moderate savings	Large savings
COST EFFECTIVENESS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	**Favors the intervention**
EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased
ACCEPTABILITY	No	Probably no	Probably yes	**Yes**	
FEASIBILITY	No	Probably no	Probably yes	**Yes**	

Source recommendation:
Strong in favor

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	Small	**Moderate**	Large	
UNDESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large	
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EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased
ACCEPTABILITY	No	Probably no	Probably yes	**Yes**	
FEASIBILITY	**No**	Probably no	Probably yes	Yes	

Source recommendation:

Strong in favor

Adolopment:

- Concerns about feasibility in the local context

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	Small	**Moderate**	Large	
UNDESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large	
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EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased
ACCEPTABILITY	No	Probably no	Probably yes	**Yes**	
FEASIBILITY	**No**	Probably no	Probably yes	Yes	

Source recommendation:
Strong in favor

Adolopment:

- Concerns about feasibility in the local context

Adoloped recommendation?

- Strong in favor
- Conditional in favor
- Conditional against
- Strong against

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	Small	Moderate	**Large**	
UNDESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large	
CERTAINTY OF EVIDENCE	Very low	Low	**Moderate**	High	
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	**No important uncertainty or variability**	
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	**Favors the intervention**
RESOURCES REQUIRED	Large costs	**Moderate costs**	Negligible costs and savings	Moderate savings	Large savings
COST EFFECTIVENESS	Favors the comparison	**Probably favors the comparison**	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention
EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased
ACCEPTABILITY	No	Probably no	**Probably yes**	Yes	
FEASIBILITY	No	Probably no	**Probably yes**	Yes	

Source recommendation:
Conditional in favor

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	Small	Moderate	**Large**
UNDESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large
CERTAINTY OF EVIDENCE	Very low	Low	**Moderate**	High
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EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased
ACCEPTABILITY	No	Probably no	**Probably yes**	Yes
FEASIBILITY	No	Probably no	**Probably yes**	Yes

Source recommendation:

Conditional in favor

Adolopment:

- Prices are lower in the local context

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	Small	Moderate	**Large**
UNDESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large
CERTAINTY OF EVIDENCE	Very low	Low	**Moderate**	High
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	**No important uncertainty or variability**
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	**Favors the intervention**
RESOURCES REQUIRED	Large costs	Moderate costs	Negligible costs and savings	**Moderate savings**	Large savings
COST EFFECTIVENESS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	**Probably favors the intervention**	Favors the intervention
EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased
ACCEPTABILITY	No	Probably no	**Probably yes**	Yes
FEASIBILITY	No	Probably no	**Probably yes**	Yes

Source recommendation:
Conditional in favor

Adolopment:

- Prices are lower in the local context

Adoloped recommendation?

- Strong in favor
- Conditional in favor
- Conditional against
- Strong against

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	**Small**	Moderate	Large	
UNDESIRABLE EFFECTS	Trivial	**Small**	Moderate	Large	
CERTAINTY OF EVIDENCE	Very low	**Low**	Moderate	High	
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BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	**Does not favor either the intervention or the comparison**	Probably favors the intervention	Favors the intervention
RESOURCES REQUIRED	Large costs	Moderate costs	**Negligible costs and savings**	Moderate savings	Large savings
COST EFFECTIVENESS	Favors the comparison	Probably favors the comparison	**Does not favor either the intervention or the comparison**	Probably favors the intervention	Favors the intervention
EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased
ACCEPTABILITY	No	Probably no	**Probably yes**	Yes	
FEASIBILITY	No	Probably no	**Probably yes**	Yes	

Source recommendation:
Conditional against

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	Small	Moderate	**Large**
UNDESIRABLE EFFECTS	Trivial	**Small**	Moderate	Large
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	**High**
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COST EFFECTIVENESS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	**Favors the intervention**
EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased

ACCEPTABILITY	No	Probably no	**Probably yes**	Yes
FEASIBILITY	No	Probably no	**Probably yes**	Yes

Source recommendation:

Conditional against

Adolopment:

- Identified emerging evidence that changes the effect estimates and certainty of evidence

Should Intervention A vs. Intervention B be used for Population X?

DESIRABLE EFFECTS	Trivial	Small	Moderate	**Large**
UNDESIRABLE EFFECTS	Trivial	**Small**	Moderate	Large
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	**High**
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	**No important uncertainty or variability**

BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	**Favors the intervention**
RESOURCES REQUIRED	Large costs	Moderate costs	**Negligible costs and savings**	Moderate savings	Large savings
COST EFFECTIVENESS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	**Favors the intervention**
EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased

ACCEPTABILITY	No	Probably no	**Probably yes**	Yes
FEASIBILITY	No	Probably no	**Probably yes**	Yes

Source recommendation:

Conditional against

Adolopment:

- Identified emerging evidence that changes the effect estimates and certainty of evidence

Adoloped recommendation?

- Strong in favor
- Conditional in favor
- Conditional against
- Strong against

Some practical aspects

9 Acceptability

Is the intervention acceptable to key stakeholders?

Adolopment

ORIGINAL

JUDGEMENT

- ○ No
- ○ Probably no
- ○ Probably yes
- ◉ Yes
- ○ Varies
- ○ Don't know

Detailed judgements

RESEARCH EVIDENCE

Observational research suggests the following acceptability and barriers associated with home treatment for VTE patients:

Patients

· Acceptability of outpatient LMWH injections: Acute proximal DVT patients treated at home with daily LMWH injections had greater treatment satisfaction than the hospital care group receiving 5 days of LMWH and VKA at the hospital. Even returning to the hospital every day for LMWH injections was considered more convenient than being admitted. Almost all patients in an outpatient treatment program were satisfied with this treatment. (Hull et al., 2009)(Zed et al., 2008)

ADDITIONAL CONSIDERATIONS

ADOLOPMENT

JUDGEMENT

- ○ No
- ○ Probably no
- ○ Probably yes
- ○ Yes
- ◉ Varies
- ○ Don't know

Detailed judgements

RESEARCH EVIDENCE

No additional evidence identified.

ADDITIONAL CONSIDERATIONS

acceptable if resources are made available (e.g., nursing care, adequate follow up)

different patients might have different preferences

acceptabilty of hospital administration could be variable (regional hospital vs. private hospital to keep patient)

concern about patient safety (physician perspective)

SUMMARY OF JUDGEMENTS

CRITERIA	ORIGINAL	IMPORTANCE FOR DECISION	ADOLOPMENT	IMPORTANCE FOR DECISION
DESIRABLE EFFECTS	Trivial		Trivial	
UNDESIRABLE EFFECTS	Small		Small	
CERTAINTY OF EVIDENCE	Very low		Very low	
VALUES	Possibly important uncertainty or variability		Possibly important uncertainty or variability	
BALANCE OF EFFECTS	Does not favor either the intervention or the comparison		Does not favor either the intervention or the comparison	
RESOURCES REQUIRED	Large savings		Varies	
COST EFFECTIVENESS	Probably favors the intervention		Probably favors the intervention	
EQUITY	Varies		Varies	
ACCEPTABILITY	Yes		Varies	
FEASIBILITY	Yes		Varies	

TYPE OF RECOMMENDATION

Adolopment

ORIGINAL

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	**Conditional recommendation for the intervention**	Strong recommendation for the intervention
○	○	○	◉	○

ADOLOPMENT

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	**Conditional recommendation for the intervention**	Strong recommendation for the intervention
○	○	○	◉	○

Adolopment

ORIGINAL

Recommendation

In patients with pulmonary embolism (PE) with low risk of complications, the ASH guideline panel *suggests* offering home treatment over hospital treatment (conditional recommendation based on very low certainty in the evidence about effects).

Remarks:
Clinical prediction scores have at best a moderate ability to predict patient outcomes and, therefore, do not replace clinical judgment. However, they may help select patients at low risk of complications. The Pulmonary Embolism Severity Index (PESI)1 and simplified PESI2 have been most widely validated. This recommendation does not apply to patients who have other conditions that would require hospitalization, have limited or no support at home, and cannot afford medications or have a history of poor adherence. Patients with submassive (i.e., intermediate-high risk) or massive PE or high risk of bleeding and those requiring IV analgesics may benefit from initial treatment in the hospital.

ADOLOPMENT

Recommendation

In patients with pulmonary embolism (PE) with low risk of complications, the Egyptian guideline panel **suggests** offering **home treatment over hospital treatment** (**conditional** recommendation based on very low certainty in the evidence).

Remarks:

- Ensure safe implementation of home treatment (assessment of the distance between home and hospital, assessment of level of education of the patient about condition, Need to have close and regular follow-up)
- Need to clarify the risk with the patient, patient preference (informed decision making)
- Ensure resources are made available (e.g., nursing care, adequate follow up)
- Consider home treatment for patients with immunerelated disorder
- More feasible in private and urban areas comapred to governmental and rural areas
- Important feasiblity aspect to consider is management in case of complication
- Consider legal issues around home injection

Lessons learned

Lessons learned: what's been successful

- Different types of guideline developers (governmetnal, government supported, professional network, professional society)
- Local decision makers and practitioners ability to prioritize questions
- Flexibilty of the methodology
  - Different entry points
  - EtD availablity/unavailability
  - Collaboration with source guideline developers
  - Use of software tools

Lessons learned: improvement opportunities

- Better integration within the ecosystem of health decision making (including HTA, quality improvement, implementation)
- Better enagement of stakeholder (ownership and uptake)
- Better linkage to implementation
- Assessment of uptake and impact

Sustainabiltiy

- Institutionalization of the process
- Identification of champions to lead and sustain the work

Adolopment

- Adolopment is not only about saving time and resources

- Adolopment brings contextualization to the center of recommendation development, to facilitate later implementation

THANK YOU!