TARTU ÜLIKOOL

Tõendusmaterjali kokkuvõtte koostamine

TARTU ÜLIKOOL

Eriline tänu: **Holger Schünemann** ja GRADE working group

www.gradeworkinggroup.org

Kaja-Triin Laisaar

TÜ peremeditsiini ja rahvatervishoiu instituut

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Tallinn 17.02.2017

Formulate question

Select outcomes

Rate importance

P
I
C
O

Outcome — Critical

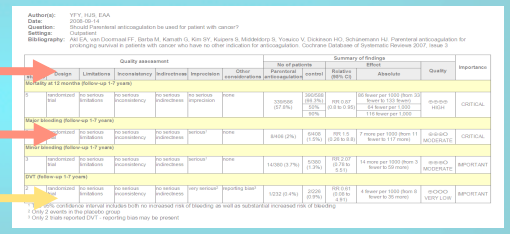
Outcome — Critical

Outcome — Important

Outcome — Not important

Outcomes across studies

Create evidence profile with GRADEpro



Summary of findings & estimate of effect for each outcome

Rate quality of evidence for each outcome

High
Moderate
Low
Very low

RCT start high, obs. data start low

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

Formulate recommendations:

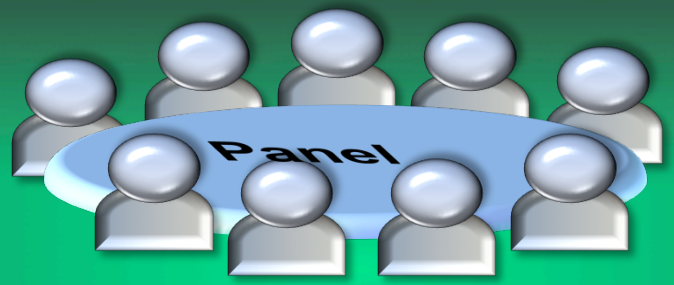
- For or against (direction)
- Strong or weak (strength)

By considering:

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

Revise if necessary by considering:

- ❑ Resource use (cost)



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

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

GRADE: 1.–3. samm

1. Määratle täpselt kliiniline küsimus
2. Vali kliinilise soovituse tegemiseks tulemid
3. Hinda valitud tulemite suhtelist olulisust

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GRADE: 4. samm

Koosta tõenduse kokkuvõte

Tõenduse kokkuvõte

Üks kliiniline küsimus

↓

Kõik selle kliinilisele küsimusele vastavad tulemusnäitajad (eraldi)

↓

Iga tulemusnäitaja kohta kõigi asjakohaste uuringute koondandmed ja –hinnang

Tõenduse kokkuvõtte vormid:

- GRADE Summary of Findings Table
- GRADE Evidence Profile

GRADE's software for Summary of Findings tables, Health Technology Assessment and Guidelines

LOG IN / SIGN UP

GRADE Evidence Profile

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Quality assessment							Summary of findings					
							No of patients		Effect		Quality	Importance
No of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	anticoagulation	control	Relative (95% CI)	Absolute		
Survival at 12 months (study follow up)												
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Survival (overall - study follow up at 24 to 84 months)												
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DVT												
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Major bleeding												
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[1] Unclear concealment in one of the five trials did not lead to downgrading the quality of evidence.
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Kanna tabelisse GRADE'i 1.−3. sammu tulemused

1. kliiniline küsimus
2. kliinilise soovituse tegemiseks tulemid
3. tulemite suhtelisele olulisusele antud hinnang

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Lisa tabelisse asjakohaste (vastava tulemiga) uuringute arv, kavand ja tulemused

Taustainfoks: ekspositsiooni ja tulemi seose näitajad

... võrdlevad tulemit eksponeeritutel ja mitte-eksponeeritutel

- Jagamistehe annab **suhtenäitaja** ehk mitu korda esineb tulemit ekponeerituil rohkem kui mitte-eksponeerituil (‘1’ tähendab, et vahet pole)
- Lahutustehe annab **absoluutse erinevuse näitaja** ehk kui palju esineb tulemit eksponeerituil rohkem kui mitte-eksponeerituil (‘0’ tähendab, et vahet pole)

...

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Taustainfoks: suhteline risk (RR) või šansside suhe (OR)

OR'i on raskem tõlgendada

Kui andmed võimaldavad mõlemaid arvutada, tasub eelistada RR'i

nt ei ole RR'i võimalik arvutada juhtkontrolluuringutes (ingl *case-control studies*)

Harva esineva tulemi korral OR ≈ RR

Kui tulemi esinemissageduse suureneb, eemaldub OR 1'st (ehk tulemist 'vahet pole') rohkem kui RR – võib tekkida ekslik mulje ekspositsiooni ja tulemi seose tugevusest

...

Taustainfoks: suhteline risk (RR)

		tulem		
		Jah	Ei	Kokku
ekspositsioon	Jah	80	20	100
	Ei	40	60	100
	Kokku	120	80	200

Tulemi (nt haigestumise) risk eksponeeritutel 80 : 100 = 0,8

Tulemi (nt haigestumise) risk mitte-eksponeeritutel 40 : 100 = 0,4

RR = 0,8 : 0,4 = 2

Tõlgendus: Suhteline risk tulemi tekkeks (nt haigestumisrisk) eksponeeritutel 2 korda suurem kui mitte-eksponeeritutel

Taustainfoks: šansside suhe (OR)

		tulem		
		Jah	Ei	Kokku
ekspositsioon	Jah	80	20	100
	Ei	40	60	100
	Kokku	120	80	200

Tulemi tekke (nt haigestumise) šanss eksponeeritutel 80 : 20 = 4

Tulemi tekke (nt haigestumise) šanss mitte-eksponeeritutel 40 : 60 = 2/3

OR = 4 : 2/3 = 6

Tõlgendus: Šanss haigestuda on eksponeeritutel 6 korda suurem kui mitte-eksponeeritutel

Taustainfoks: riskide vahe / liigrisk (ARR)

		tulem		
		Jah	Ei	Kokku
ekspositsioon	Jah	80	20	100
	Ei	40	60	100
	Kokku	120	80	200

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Tulemi tekke (nt haigestumise) risk mitte-eksponeeritutel 40 : 100 = 0,4

ARR = 0,8 - 0,4 = 0,4

Tõlgendus: Põhjusliku seose eeldusel on 40 haigestumist eksponeeritute seas tingitud ekspositsioonist

GRADE: 5. samm

Hinda iga tulemi tõenduse kvaliteeti

Hinda asjakohaste uuringute piiranguid ehk erinevate nihete tõenäosust

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	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of patients?	Blinding of providers?	Blinding of data collectors?	Blinding of outcome adjudicators?	Blinding of data analysts?	Incomplete outcome data addressed?	Free of selective reporting?	Free of other bias?	Intention-to-treat-analysis?
Altinbas 2004	+	-	-	-	-	-	-	+	+	+	+
Kakkar 2004	+	+	+	+	+	+	-	+	+	+	+
Klerk 2005	+	+	+	+	+	+	-	+	+	-	+
Lebeau 1994	+	+	-	-	-	-	-	+	?	+	+
Sideras 2006	+	+	-	-	-	-	-	+	+	+	?

Vt koolitusel lisamaterjalina jagatud Cochrane'I käsiraamatu nihke-võimaluste tabeleid

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Lisa tabelisse koondhinnang nende 5 uuringu piirangutele ehk nihke tõenäosusele neis uuringuis

Vajadusel lisa hinnangule joonealusena selgitavad märkused

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Seejärel hinda tõenduse kvaliteeti ehk kas

2. uuringute tulemused on / ei ole kooskõlas (ingl *inconsistency of results*)
3. tõendus on kaudne (ingl *indirectness of evidence*)
4. uuringute tulemused on ebatäpsed (ingl *imprecision*)
5. uuringute tulemused on avaldatud valikuliselt (ingl *publication bias*)

Kaalu, kas on põhjust tõenduse kvaliteedi taset langetada või tõsta

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Lisa tabelisse hinnang nende 5 uuringu tulemuste kooskõla, kaudsuse, täpsuse ning vajadusel ka muude kvaliteedinäitajate kohta

Kvaliteeditaseme langetamisel/tõstmisel lisa joonealusena selgitavad märkused

Lõpetuseks anna kõigi kriitilise tulemi tõenduse kohta koondhinnang

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GRADE Handbook

http://gdt.guidelinedevelopment.org/app/handbook/handbook.html