G-I-N Melbourne 2014

sharing summaries of evidence for decision making

DATABASE OF EVIDENCE PROFILES

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AUG 21

Disclosure of Interests (last 3 years): Jan Brozek

I certify that, to the best of my knowledge, no aspect of my current personal or professional situation might reasonably be expected to affect significantly my views on the subject on which I am presenting.

... except for:

Disclosure

Disclosure

- GRADE working group
- Cochrane Collaboration
- GRADEpro » GDT
- ATS + other groups
- No direct/personal for profit payments


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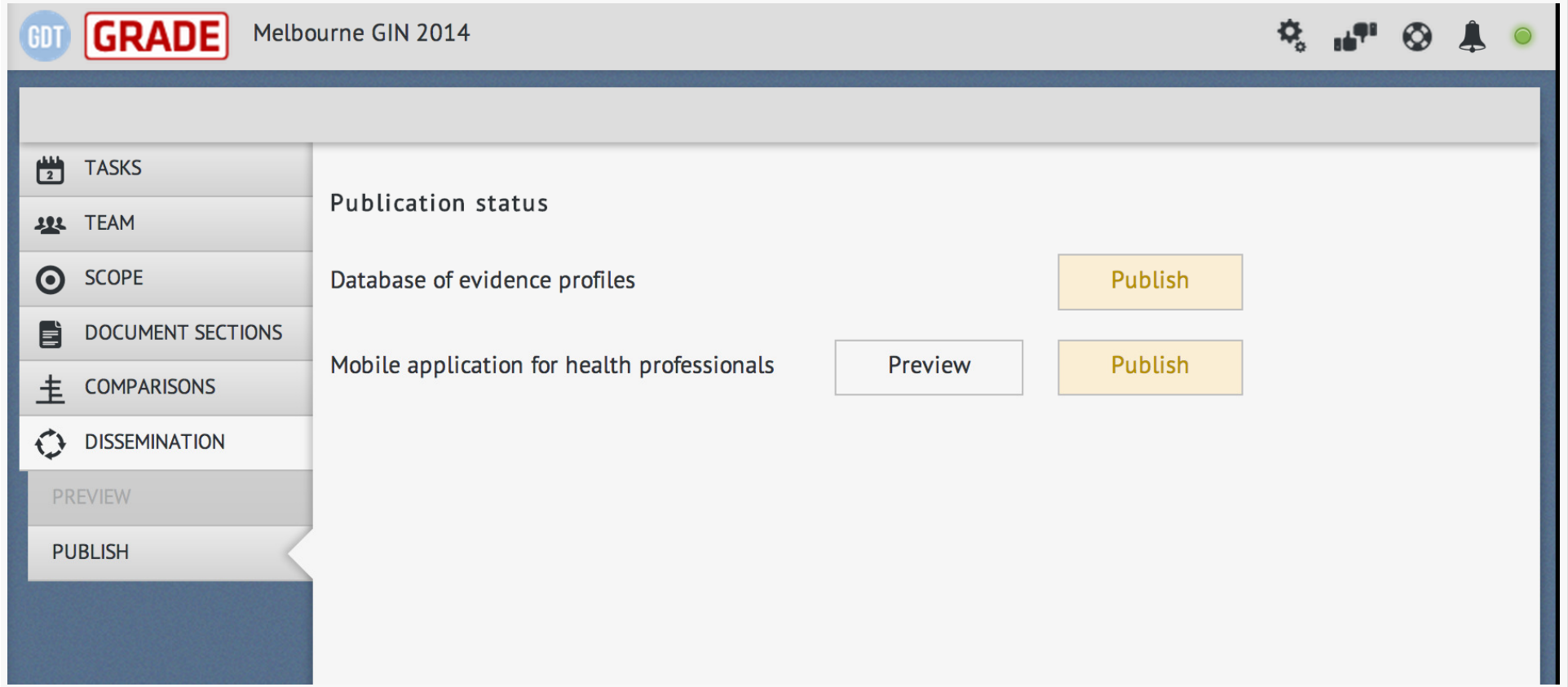
of evidence summaries


GDT
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TASKS
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SCOPE
DOCUMENT SECTIONS
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Database of evidence profiles
Publish
Mobile application for health professionals
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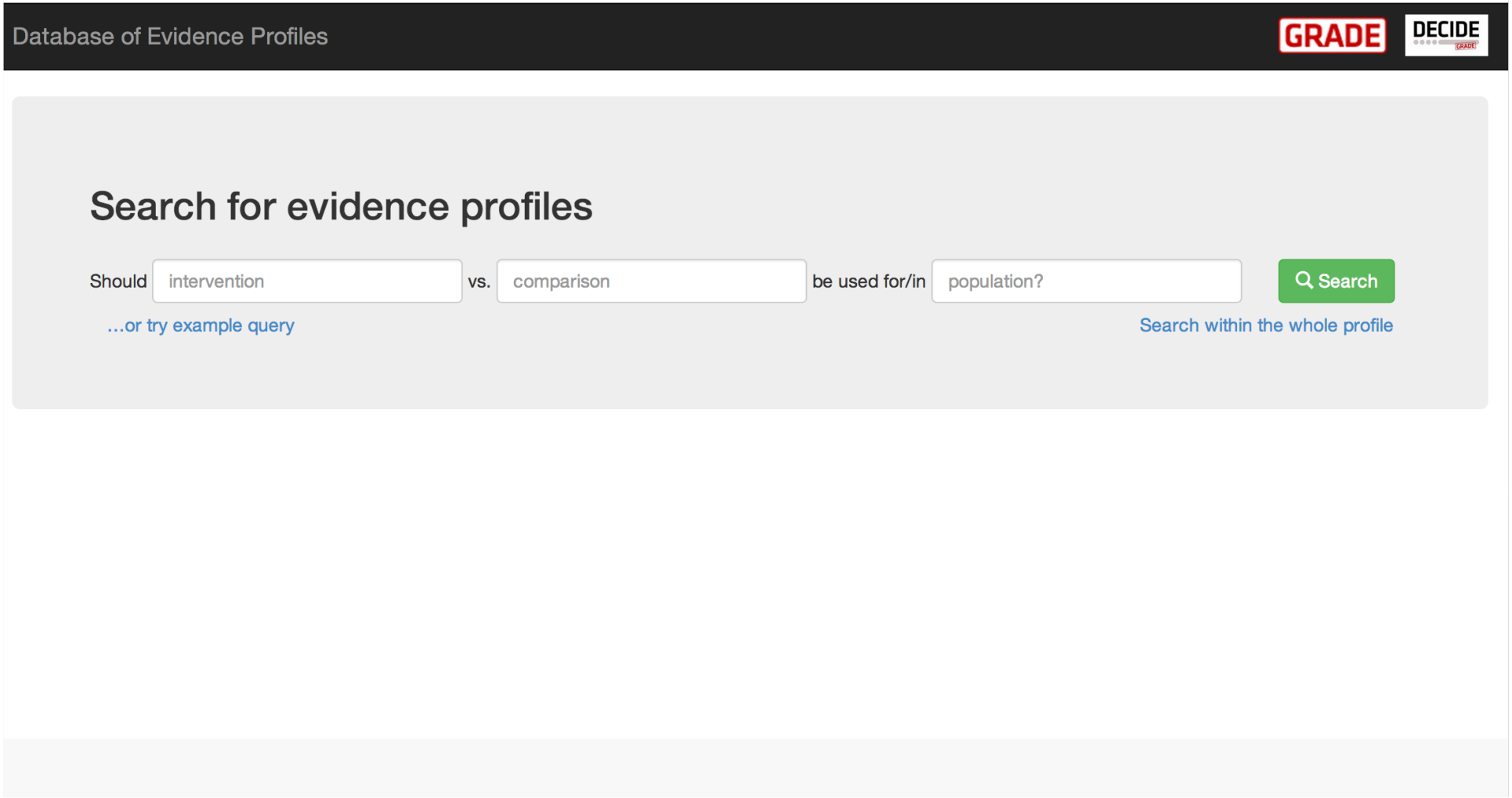
Benefits

- search
- use for adaptation/development
- derivative products (textbooks, EMRs, etc.)

- common data model
- up-to-date + trustworthy
- intellectual property rights
- licensing

DBEP


Database of Evidence Profiles
GRADE
DECIDE
Search for evidence profiles
Should
intervention
vs.
comparison
be used for/in
population?
Search
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Search within the whole profile

Should prophylactc dose heparin vs. no prophylaxis be used in patients with hemorrhagic stroke?

Recommendation

KSA Saudi Expert Panel members suggest using prophylactic dose heparin in patients with hemorrhagic stroke and restricted mobility.

Key info | Rationale | Practical advice | References

Benefits and harms

No data for patients with ICH, we extrapolated from data on ischemic stroke.Low quality of evidence suggests that prophylactic dose heparin did not increae the risk of death or rebleeding. Moderate and low quality evidence suggested that the use of prophylactic dose heparin reduce the risk of PE and symptomatic DVT (respectively) when compared to no prophylaxis, with no change in the risk of rebleeding.

Quality of evidence

Low

GRADE evidence profile | Summary of Findings table

Open in new window

Author(s):
Date:
Question: Should prophylactc dose heparin vs. no prophylaxis be used in patients with hemorrhagic stroke?
Settings:
Bibliography (systematic reviews):

Quality assessment							№ of patients		Effect		Quality	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	prophylactc dose heparin	no prophylaxis	Relative (95% CI)	Absolute (95% CI)		
Mortality												
2	randomised trials	serious [4] [5]	not serious	not serious	serious [6]	none	/114 [3]	400/1000 (40.0%) [2]	**RR 1.05** (0.46 to 2.36)	20 more per 1000 (from 216 fewer to 544 more)	⨁⨁◯◯ LOW	
Pulmonary Embolism												
8	randomised trials	not serious	not serious	not serious	serious [5] [6] [9] [10]	none	/10681 [8]	16/1000 (1.6%) [7]	**RR 0.7** (0.47 to 1.03) [8]	5 fewer per 1000 (from 0 fewer to 8 fewer)	⨁⨁⨁◯ MODERATE	
Symptomatic DVT												
8	randomised trials	not serious	serious [5] [6] [9] [10]	not serious	serious [11]	none	/914 [8]	48/1000 (4.8%) [7]	**RR 0.31** (0.21 to 0.42) [8]	33 fewer per 1000 (from 28 fewer to 38 fewer)	⨁⨁◯◯ LOW	
Rebleeding												
3	randomised trials	serious [1]	not serious	not serious	serious [1]	none	/189 [14]	10/1000 (1.0%) [12]	**RR 0.24** (0.05 to 1.13) [13]	8 fewer per 1000 (from 1 more to 10 fewer)	⨁⨁◯◯ LOW	

MD – mean difference, RR – relative risk

1. No explanation was provided
2. Baseline risk of mortality is derived from: Lancet Neurol. 2010;9(2):167-76
3. We excluded Orken 2009 from this analysis given the control group received compression stockings which is a confounding factor
4. Allocation: unclear whether concealed in both studies (Boeer 1991; Dickmann 1988). Unclear whether ITT analysis in both studies. None of the 2 studies stopped early for benefit. None of the studies reported blinding patients.
5. 95% CI includes both 1) no effect and 2) appreciable benefit or appreciable harm
6. Fewer than 300 events occurred.
7. Baseline risks derived from the control arm of CLOTS. Patients included in the trial were judged representative of the population of stroke patients with restricted mobility. Indeed, CLOTS used few exclusion criteria: patients with peripheral vascular disease, those with diabetic or sensory neuropathy in whom GCS was might cause skin damage; those with subarachnoid haemorrhage
8. Indirect data from studies of the effects of heparin on DVT and PE in patients with ischemic stroke (See corresponding EP).
9. IST is the dominant study in the meta-analysis. In IST allocation was concealed, outcome assessors were blinded; f/u>99%; study not stopped early for benefit; not clear whether analysis was ITT.
10. Although relative risks for PE and DVT are taken form studies of patients with ischemic stroke, we judged that the indirectness is not significant enough to warrant rating down the quality of the evidence.
11. Statistical heterogeneity: p= 0.003; I squared = 74.3%
12. Observational data on baseline risk of rebleeding: In one study, of 302 patients with ICH and a control CT 24 hours after admission excluding a progressive haematoma, none experienced major bleeding after being started on LMWH.(Kleindienst, Acta Neurochir (Wien) (2003) 145: 1085–1091). In a second study, of 97 patients with ICH and no clinical evidence of hemorrhage enlargement 36 h after admission, none showed a significant hemorrhage growth after being started on LMWH.(Kiphuth;Cerebrovasc Dis 2009;27:146–150). We use 1% as baseline risk, which is the upper limit of the CI around the incidence derived from these 2 studies.
13. Indirect evidence from an observational study (Warsay JPMA 58:362;2008): very low incidence in rebleeding with no difference between heparin and no heparin: 1/200 vs. 0/258
14. Included studies: Orken 2009 (LMWH started >48hrs after hemorrhage; while it compares LMWH to long compression stockings, the effect on rebleeding should be similar to that of a comparison of heparin vs. no heparin); Boeer 1991 (UFH started between day 2 and 4 compared to UFH started on day 10; practical comparison of heparin to no heparin during the follow-up period of interest as outcome was assessed on day 10); and Dickman 1988 (UFH started on day 4 compared to UFH started on day 10; practical comparison of heparin to no heparin during the follow-up period of interest as outcome was assessed on day 10)
15. We considered the timeframe during which patients are exposed to heparin and at consequently at risk of rebleeding.
16. Allocation: not concealed in one study (Orken 2009) and unclear whether concealed in 2 studies (Boeer 1991; Dickmann 1988). Unclear whether ITT analysis in the each of the 3 studies. None of the 3 studies stopped early for benefit. In Orken 2009, patients who died prior to day 7 (n=4) were excluded from the study after randomization; however none of them had hematoma enlargement after randomization (author contact). None of the studies reported blinding patients. Only one study (Orken 2009) reported blinding assessors of bleeding outcome.

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