Cochrane Reviews in Palliative Care; where is the evidence?

- Common errors and problems with systematic reviews in Palliative care and how to overcome.

Phil Wiffen UK Cochrane Centre

What has been achieved ?

Cochrane Library as a whole:

- Approx. 350 Reviews (290 cancer related), 140 protocols (120 cancer related)
- 6-8 relevant new reviews every 3 months.
- Other reviews on DARE database: 700 approx (600 cancer related)

Cochrane Pain & Palliative Care Group

- 90 reviews and 50 protocols
- 29,000 RCTs identified (5600 tagged as palliative)
- Pain: 1700,
- chemotherapy related: 2200,
- symptoms: 1000,
- QOL: 900

Cochrane Pain & Palliative Care Group

Reviews:

Pain: Antidepressants, anticonvulsants, most opioids, ketamine, NSAIDs, paracetamol radio-isotopes, radiotherapy

Cochrane Pain & Palliative Care Group

Reviews:

Symptoms including: fatigue- exercise, drug therapy. Breathlessness. Depression, anxiety and delirium. Noisy breathing

Interventions including: acupuncture, drug therapy, psychological therapies,

Cochrane Reviews for the common symptoms

Largely done for majority of symptoms in adults

The gaps:

- Paediatric pain and symptom control

Do we just extrapolate from adult studies or from other populations?

Cochrane Reviews in Palliative Care: gaps

Pain:

- Codeine, fentanyl in process.
- Spinal route poorly covered

Symptoms:

- Skin related, cough, hiccough

How useful is what we have?

- How useful are systematic reviews in Palliative Care ? Survey of 24 Cochrane Reviews. Hadley G, Derry S, Wee B (in press)

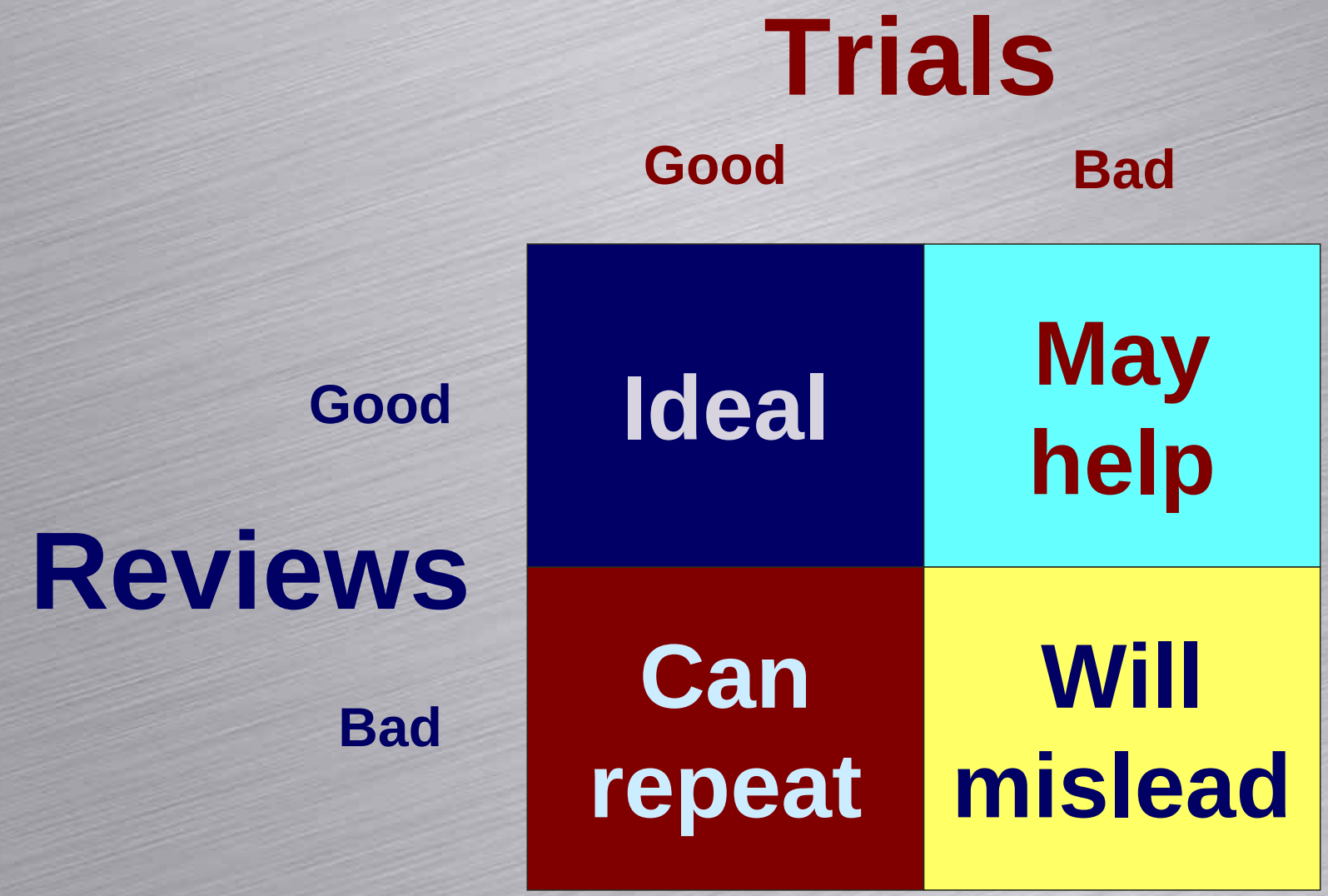
How useful is what we have?

- 24 reviews covered 24,000 participants.
- No of included studies: 0 to 45. 13 had <5 and 15 had <10
- 7 reviews < 100 participants
- 9 reviews had > 1000 participants
- Methods judged to be sound
- 22 of 24 reviews judged to be weak on evidence

What are the problems?

Primary studies

- ‘which were either missing or scant, or were characterised by heterogeneity in the methods, interventions, patients and outcomes, which made overall assessment of benefit or harm impossible’


Trials
Good
Bad
Reviews
Good
Bad
Ideal
May help
Can repeat
Will mislead

Don’t shoot the reviewer!

- Systematic reviews that demonstrate a lack of evidence do have some value.

They stimulate new research.

Challenge of systematic reviewing

- Useful tool but science is still developing
- Old reviews using older methods may be more liable to bias
- Latest thinking based on transparency of data extraction
- What to do with non randomised studies?

Changing perspectives on evidence

Attitudes to EBM

- We would not think of doing a study to determine which is better- chocolate or vanilla ice cream

Hallenbeck J. Editorial J PallMed 2008

What about Blog sites?

Changing perspectives on evidence

Attitudes to EBM

I will consider suing (a hospital) which does not offer me care which has been shown to be effective.

Chalmers I, HSJ 1998

"I figure there's a 40% chance of showers, and a 10% chance we know what we're talking about."

Guyatt, G. H et al. BMJ 2008;336:924-926

BMJ

Defining evidence

- Grade

:An international effort to define quality of evidence- linked to RCTs and quality of RCTs.

- Earlier examples

: levels of evidence such as SIGN

Modified GRADE quality assessment criteria

Quality of evidence	Study design	Lower if *	Higher if *
High	Randomised trial	RCT poor quality	No threats to validity.
Moderate	Quasi-randomised trial		
Low	Observational study		
Very low	Any other evidence		

Atkins *et al. BMC Health Services Research* 2005 **5**:25 doi:10.1186/1472-6963-5-25

SIGN LEVELS OF EVIDENCE (www.sign.ac.uk)

1++	High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias
1+	Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias
1-	Meta-analyses, systematic reviews, or RCTs with a high risk of bias
2++	High quality systematic reviews of case control or cohort or studies High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal
2+	Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal
2-	Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal
3	Non-analytic studies, e.g. case reports, case series
4	Expert opinion

How do we move forward in Palliative care?

- Multicentre, international trial co-operation and co-ordination - a role for EAPC ?
- Large registry studies. Rheumatology studies are good model for this.

In conclusion

- Systematic reviews are useful in identifying the evidence for interventions and systems
- We need to expand the research culture in Palliative care to ensure there is a sound basis for decisions about the care of patients