

Pharmacy practice research - designing your study

Interactive Session 3

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Disclosure Slide

Interactive Session 3

Conflict of Interest- nothing to
declare.

Three Questions

- A protocol for a research project is optional **True/False**
- Audit always needs ethical approval **True/False**
- Research is never wasted **True/False**

The Plan

- Is there a problem?
- Impact of EBM
- Some ways to get involved
- Your chance to discuss your proposals in small groups
- Learn, contribute and enjoy!

Is there a problem?

- Medical staff frequently undertake research as part of their career progression
- Other professions regularly publish
- Pharmacists generally are not focussed on research activities
- Pharmacists are capable of and undertake good research but then may not publish
- Impact factor of pharmacy journals is low

The challenge of EBM

- Funders only want to pay for interventions that work
- The problem of a lack of evidence for effectiveness vs evidence for no effect
- An interesting example:
 - Christensen M, Lundh A. Medication review in hospitalised patients to reduce morbidity and mortality. *Cochrane Database of Syst Rev* 2013;(4).

Christensen M, Lundh A. Medication review in hospitalised patients to reduce morbidity and mortality. Cochrane Database of Syst Rev 2013;(4).

- **The conclusion of the review:**
- It is uncertain whether medication review reduces mortality or hospital readmissions, but medication review seems to reduce emergency department contacts. However, the cost-effectiveness of this intervention is not known and due to the uncertainty of the estimates of mortality and readmissions and the short follow-up, important treatment effects may have been overlooked
- **Practice recommendation:**
- First, we do not know if such medication reviews are actually cost-effective. Second, we do not know the long-term treatment effects of the intervention. And third, we do not know in which form or in which patient groups such reviews are most effective. Thus, if medication reviews are implemented, it should be in the context of rigorous evaluation.

Christensen M, Lundh A. Medication review in hospitalised patients to reduce morbidity and mortality. Cochrane Database of Syst Rev 2013;(4).

- **Two major concerns!**
- 1. The review probably looked at the wrong outcomes- the primary was mortality- is that why we undertake medication review? Only RCTs included- other designs important here. There is too little evidence to draw such conclusions
- 2. What have clinical pharmacists been doing ?
Where is the underpinning evidence?
Custom and practice is no longer adequate.

Clinicians must not only be consumers of research but must contribute to the body of evidence supporting the care that they provide to patients.

(Winterstein and Vermeulen ASHP 2008)

Research Aware

- ALL- aware of research and implementing high quality when relevant to practice
- MOST- able to effectively evaluate research and encourage implementation
- SOME- actively involved in producing high quality evidence through research projects

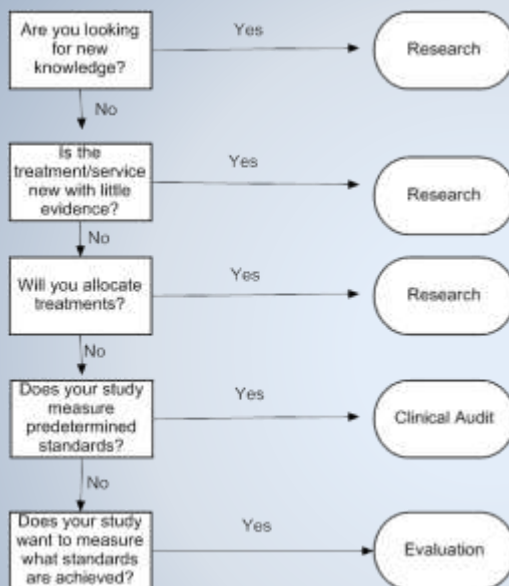
See series on EB Pharmacy in EJHP 2013 on

Research vs audit

- Often confused- audit is good and may be worthy of publication-
Key question:

- **Is your project research, evaluation or audit?**

- http://www.apcrc.nhs.uk/governance/is_it_research.htm



Developed from the UK NRES Defining Research leaflet

- Getting involved in research does not just happen

- **Be intentional**

Every journey into research is
different-my story



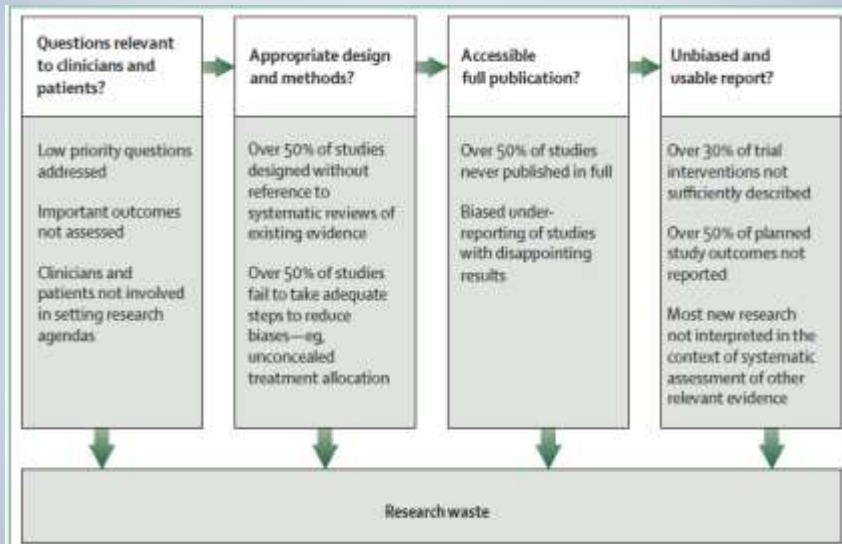
Serendipity:

- The occurrence and development of events by chance in a happy or beneficial way (Oxford Dictionary)
- **Grab your opportunity**



1. American Journal of Health-System Pharmacy Series: Research Fundamentals

Research Waste



Chalmers and Glasziou. Lancet 374 pp86-89 2009

Checklist for a successful project.

Three aspects to consider

- Research concept
- Study design and practical issues
- Data collection and analysis (including publication)

Small group work

Identify some projects in the audience

- Work on the 3 research questions and study design (Stages 1 & 2)
- Develop feedback on flipchart
- Discussion session

Three Questions

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- **Answer: False**
- Audit always needs ethical approval **True/False**
- **Answer: False**
- Research is never wasted **True/False**
- **Answer: False**

Three 'take home messages'

- Look for opportunities to get involved in research
- Consider a multidisciplinary approach
- Plan carefully with a protocol

- Finally:- Don't forget to publish!