

ACHIEVING IMPACT IN EMERGENCY CARE RESEARCH

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Background



- UK research policy has recently become clearly focused on impact
 - ▣ The 'health and wealth' agenda
- Public research funders such as RCUK and NIHR now ask for info on how impact will be maximised
- They expect that the next CSR settlement will depend on showing impact

What is impact and how do you measure it?



- Some ideas from the 2014 Research Excellence Framework so first need to explain what that is, and what they think about impact.

What is the REF?



- A national assessment of the quality of research in UK Universities
- Happens every 5-6 years
- Used to distribute >£1.5bn pa of HEFCE funding

Panels



- Quality is assessed by panels of researchers + users
- There are 3 panels in REF2014 directly relevant to medical subjects:
 - Panel 1: medicine
 - Panel 2: health research (HSR, public health and epi, Primary Care)
 - Panel 3: allied health (Nursing, dentistry, allied health including paramedics etc)

The assessment framework

Overall quality

Publications

Impact

Environment

Maximum of 4 outputs
per researcher

Template and case
studies

Template and data

65%

20%

15%

Originality, rigour,
and significance

Reach and significance


Vitality and sustainability


Impact



- For the purposes of the REF impact is defined as

“an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life”


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- Does it include impact on structures and processes or only outcomes?
 - Yes, eg
 - guidelines have changed
 - Policy debate has been stimulated
 - Services have been reconfigured

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- Does it include negative effects (eg Wakefield who certainly had “an effect on society and health”?)
 - REF tries to avoid this.
 - Requires impact to be underpinned by good quality research
 - Impact is about benefit, including the avoidance of harms and unnecessary costs

Avoiding costs – helicopter ambulances?

10



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- When does the impact have to occur?
 - Only impact from research published since 1993 can be included
 - So long term impact is excluded

Dormant research – eg in to swine flu

J. Hyg., Camb. (1983), **90**, 351–359
Printed in Great Britain

351

A comparison of live and inactivated influenza A (H1N1) virus vaccines

1. Short-term immunity

Report to the Medical Research Council Committee on the
Development of Vaccines and Immunization Procedures
(Influenza Trials Sub-Committee)

BY A. CLARK, C. W. POTTER, R. JENNINGS AND J. P. NICHOLL,
*Departments of Medical Microbiology, Virology and Community Medicine,
University of Sheffield Medical School, Beech Hill Road, Sheffield, S10 2RX*

How is impact measured?



- Universities have to submit ‘case studies’
- Which will be judged by the ‘reach and significance’ of their impact
 - Reach - the spread or breadth of influence or effect
 - Significance – the intensity of the influence or effect
- REF is clear that ‘reach’ is judged in relation to the target population
- But is unclear about what intensity means

Issues to be overcome



- How do you judge impact when the research has been done by several groups in parallel or series?
How do you judge *contribution*?
- Who can claim credit for establishing that the Higgs boson (probably) exists?
 - And will it ever have any directly connected impact
 - and when will any such impact occur?
- Methodological research

So how do you maximise impact?



Five elements:

1. Do the right type of research
2. Choose the right topic
3. Design the research with users in mind
4. Do the research to a high standard
5. Disseminate it widely

Do the right type of research



- Types of research, eg
 - ▣ Speculative blue skies vs grounded
 - ▣ Basic research vs applied
 - ▣ Evaluative vs descriptive
 - ▣ Substantive vs methodological
 - ▣ Funded by public, charities, industry?

Choosing the right topic and question



- Identifying the topic and question
 - Commissioned vs response mode
 - Questions prioritised by users
 - Professional bodies
 - Specialist societies
 - Clinical specialty groups
 - User groups, etc

Dissemination by design



- Some designs are more user friendly than others
 - Simple
 - Credible
 - Research team
 - Experimental vs observational
 - Quant vs qual
 - Outcomes relevant to users
 - Costs (from the right perspective) as well as outcome
 - Timely
 - Collaborate as widely as possible

Research quality



- Avoid bias, eg follow everyone up, achieve a high response rate,
- Integrate mixed methods, confirmation
- Do what you said you'd do, eg achieve your sample size, increases credibility
- Analyse as simply as possible, impenetrable methods lack credibility
- Present the results clearly (see [How to Display Data](#). JV Freeman, SJ Walters, MJ Campbell. BMJ Books 2008)

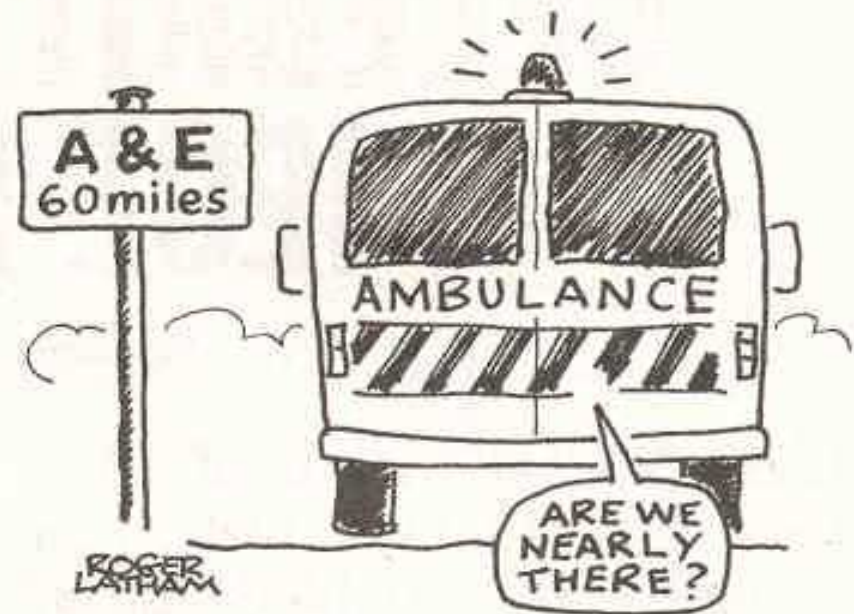
Disseminate widely



- Publish everything, you never know (H1N1)
- Papers and reports in open access, but also
 - ▣ Blogs
 - ▣ Media
 - ▣ Social networks
 - ▣ Conferences
- Promote your research to patient groups, professional groups – at the right time

Exclusive To All Papers

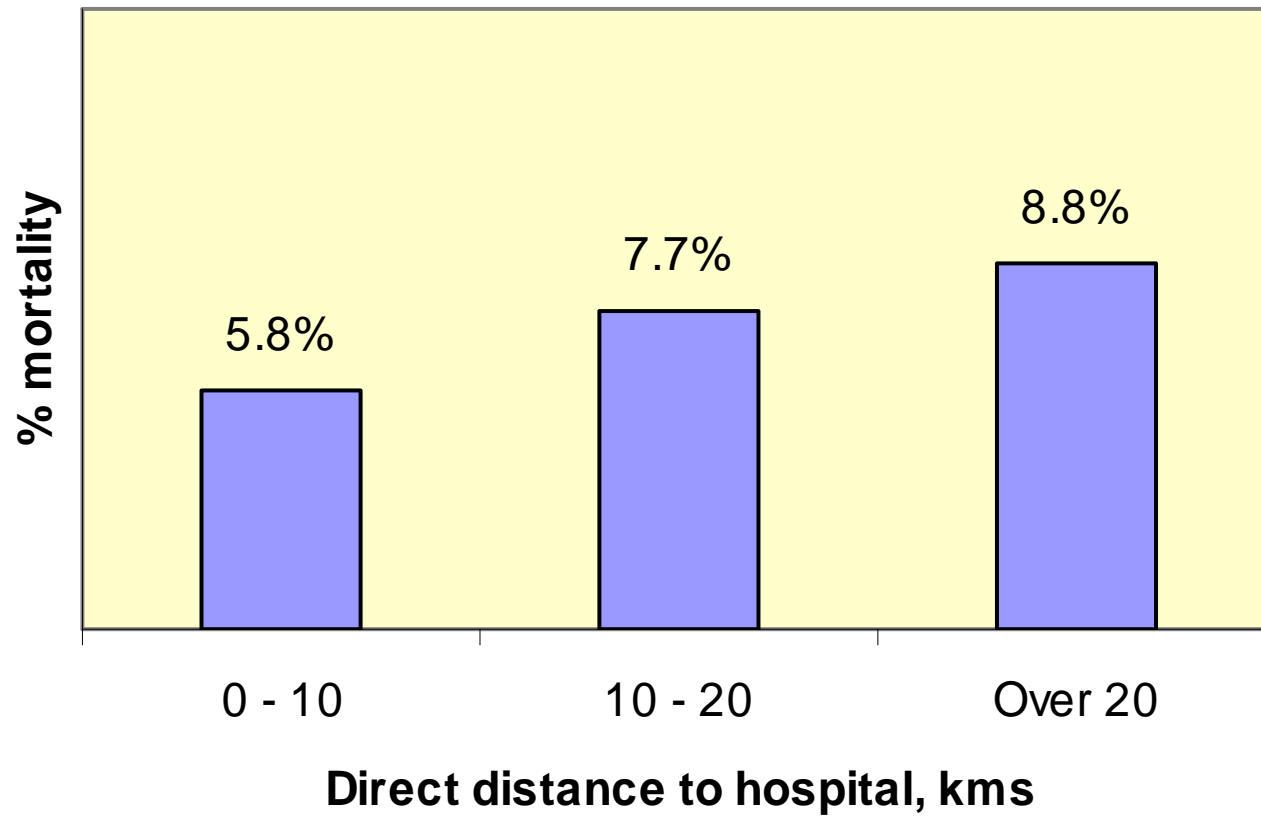
Study Reveals That The Longer Emergency Patients Spend In Ambulances Travelling To A Hospital, The More Likely They Are To Die




On other pages

- The longer you spend being a bear increases the likelihood you will defecate in nearby woods.
- The longer that a person spends being a Catholic increases their chances of becoming Pope.

Risk of dying in serious emergencies and distance to hospital



Finally, are there any special issues in emergency care research?



- All our focus is included, eg practitioner roles, services, policy, practice
- Would be helpful to prioritise research questions regularly, and promote to NIHR for commissioning
- Need to think carefully about an outcome set, which speaks to all users/implementers
- Dissemination also needs attention, because little charity or industry support



Thank you