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www.ncor.org.uk

Centre for Primary Care and
Public Health



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NCOR

Osteopathic Research

Making research relevant to
everyday
practice in a rapidly changing
health care market



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practice in a rapidly changing
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Individual practitioner level
relevance



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Professional body relevance



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Professional research relevance?

- We have a duty to our patients to regulate, improve and maintain standards of practice and patient care
- We need evidence to support our practice and justify what we do and raise credibility of our profession
- The Health and Social Care Bill: Increasing patient choice. We need to compete with other professions for business



How are we going to.....

make research relevant to
everyday
practice in a rapidly changing
health care market



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Constituted in 2003

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The development of a profession wide research culture that is inclusive, robust, credible, has national and increasingly international impact and benefits for osteopathic teaching, learning and patient care.

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Our 3 year strategic aim is to advance, facilitate and disseminate osteopathic, and osteopathic relevant, research to promote good and safe practice to optimise patient care.

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Making research relevant

- 1) Research relevance generally
- 2) Research facilitated by NCOR in the last 6 years (plus some other bits!)
- 3) The future



What research is relevant to osteopathy ?



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Appraising relevance

- What is osteopathy?



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What is osteopathy?

- Osteopathy means different things to different people
- If as a profession we can't define what we are, we should be able to describe what we do
- Standardised data collection exercise – Carol Fawkes (Sunday afternoon)



What is 'osteopathic research' ?

- Is it: Osteopathic research done by osteopaths for osteopaths?
- Is it: any research done by other musculoskeletal health professionals?



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United Kingdom back pain exercise and manipulation (UK BEAM) randomised trial: effectiveness of physical treatments for back pain in primary care

UK BEAM Trial Team BMJ, doi:10.1136/bmj.38282.669225.AE (published 29 November 2004)

What this study adds

The spinal manipulation package improves back function by a small to moderate margin at three months and by a smaller but still statistically significant margin at one year, irrespective of location

The exercise programme improves back function by a small but significant margin at three months but not at one year

Manipulation followed by exercise improves back function by a moderate margin at three months and by a smaller but still significant margin at one year



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Appraising relevance

- What is osteopathy?
- Osteopathic research done by osteopaths for osteopaths?
- Using research done by other musculoskeletal health professionals
- Using research from other disciplines



Group cognitive behavioural treatment for low-back pain in primary care: a randomised controlled trial and cost-effectiveness analysis

Lancet 2010

*Sarah E Lamb, Zara Hansen, Ranjit Lall, Emanuela Castelnuovo, Emma J Withers, Vivien Nichols, Rachel Potter, Martin R Underwood, on behalf of the Back Skills Training Trial investigators**

Interpretation Over 1 year, the cognitive behavioural intervention had a sustained effect on troublesome subacute and chronic low-back pain at a low cost to the health-care provider.



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Is the research appropriate?



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WATCH WHAT I
CAN MAKE PAVLOV DO.
AS SOON AS I **DROOL**,
HE'LL SMILE AND WRITE
IN HIS **LITTLE BOOK**.



Appraising quality

- Is the quality of evidence appropriate?

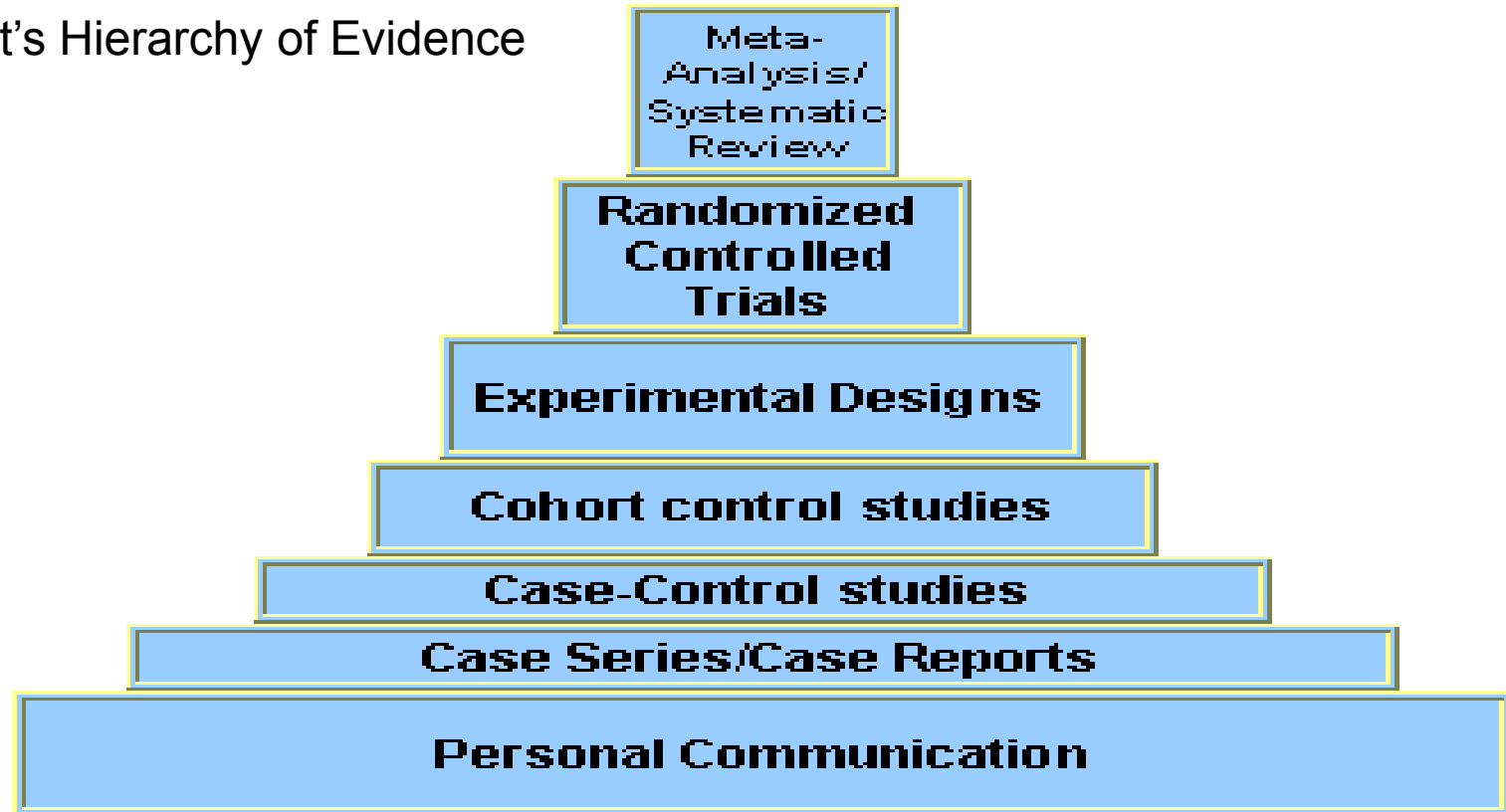


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Quality: 'upping our game'

Sackett's Hierarchy of Evidence
(1995)



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Quality: 'upping our game'



REVIEW

J Am Osteopath Assoc. 2011;111(12):685-693

Therapeutic Effects of Cranial Osteopathic Manipulative Medicine: A Systematic Review

Anne Jäkel, MSc, DPhil

Phillip von Hauenschild, BSc (Hons), Ost Med BA, ND, DO [UK]

Conclusion: The currently available evidence on the clinical efficacy of cranial OMM is heterogeneous and insufficient to draw definitive conclusions. Because of the moderate methodological quality of the studies and scarcity of available data, further research into this area is needed.



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Appraising quality

- Is the quality of evidence appropriate?
- Pilot RCT studies vs large RCTs
- How robust is the evidence?
- Critical appraisal



What research have NCOR and the UK osteopathic profession been involved with in the last 6 years?



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Snap shot tour

- Adverse events and risk in manual therapy
- Managing patient complaints
- Cranial techniques in osteopathy



Adverse events in manual therapy

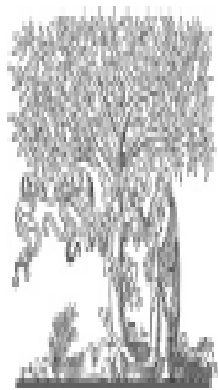
- Why research this?



Why research this?

- Understanding risk
- Evidence for ourselves
- Comparison with other health care providers
- Patient informed consent





ELSEVIER

Contents lists available at ScienceDirect

Manual Therapy

journal homepage: www.elsevier.com/math



Systematic Review

Adverse events and manual therapy: A systematic review

Dawn Carnes^{a,*}, Thomas S. Mars^b, Brenda Mullinger^b, Robert Froud^a, Martin Underwood^c

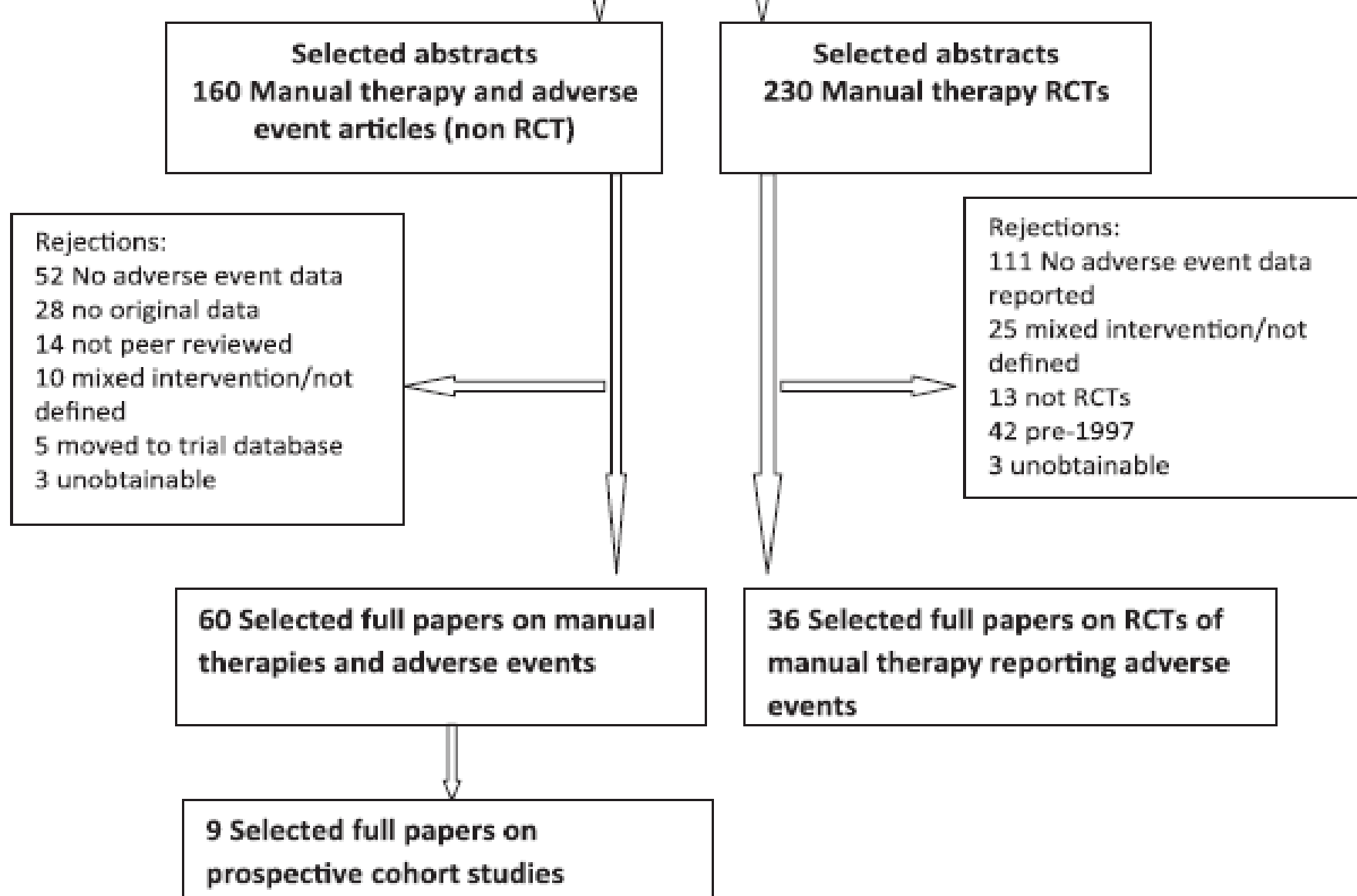


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Adverse events in manual therapy: findings

- Major/serious adverse events are rare
- Minor adverse events are common ~46% of all patients after MT treatment
- Most minor and moderate adverse events resolve within 48 hours



Adverse events in manual therapy: findings

- We estimated/inferred that there may be 1 vascular insult per 50,000 patients or per 100,000 cervical manipulations (Carnes et al 2009)
- Those likely to have a CVA are likely to seek treatment prior to the accident due to the nature of the symptoms (Cassidy et al 2008)



Adverse events in perspective

- Risk of a first time stroke in the general population in the UK is ~1: 1,000 people (Cashley et al 2008)
- The risk of death (over a 1 year period) from a car accident is ~1: 20,000 people (Haneline 2003)
- The risk of death from surgery to the cervical spine ~1: 145 (Haneline 2003)



Adverse events in perspective

- The risk of death (over a 1 year period) from long term NSAID use for OA is ~ 1:1000 (Dabbs et al 1995)
- The risk of a spontaneous internal carotid artery dissection has been estimated at 0.03-5: 100,000 in the general population over one year (Schievink 2000)



Vertebrobasilar artery dissections

- Those at risk of a vertebral artery dissection seek care for their symptoms: i.e. neck and head pain.
- They may seek care from their GP, osteopath or chiropractor.
- Seeking care rather than manipulation is more statistically associated with stroke than manipulation

(Cassidy et al 2008)



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Vertebrobasilar insufficiency tests

- Osteopaths used to be commonly taught to check for vertebral artery insufficiency by doing a provocative or positional test
- Lots of controversy over inducing symptoms that could be potentially catastrophic (Thiel & Rix 2005)
- The validity and reliability of the test is doubtful (Taylor and Kerry 2008, 2010)
- Case history will yield more information about risk



Vertebrobasilar insufficiency tests

- Statistically significant associations with VBI are:
 - seeking treatment (Cassidy 2008)
 - recent infection (Dittrich 2006)
 - presence of unusual headache
 - previous mild mechanical trauma (inc manipulation)
 - history of cardiovascular disease
 - neck pain and stiffness

(Rubinstein 2005, Haldeman 2002, Haneline 2003)



Vertebrobasilar insufficiency tests

Snap shot summary: key messages applying research to practice

- Head and neck pain may arise from vascular structures
- Vertebrobasilar insufficiency positional tests have little utility compared to case history taking and clinical examination for neck stiffness



Adverse events: Project 3

Complaints and claims against osteopaths: a baseline study of the frequency of complaints 2004-8 and a qualitative exploration of patients complaints

**Jan Leach , Adam Fiske, Brenda Mullinger,
Rachel Ives, Anne Mandy 2010**



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Managing complaints (Leach et al 2010)

- Research into patient claims made against Osteopaths shows a low rate of complaints overall:
- 1.87% of osteopaths in the UK experience formal legal complaints made against them (over a 5 year period).



Managing complaints (Leach et al 2010)

Most complaints relate to:

- Clinical care and adverse events (68%)
- Conduct and communication (21%)
- Other (11%)

Initial management of patient complaints can affect the outcome of the complaint.



Managing complaints: Key messages

Evidence shows that resolution is dependent upon:

- listening to and understanding the patient
- the osteopaths' and the patients' reaction to the discord
- the osteopaths ability to communicate empathetically



Cranial techniques in osteopathy



Kamfner photography



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Rapid review to assess published research

- 28 papers
- The literature covers 5 main areas:
 - Cranial assessment
 - Association between restrictions and health
 - Underpinning theory
 - Effectiveness studies
 - Treatment reactions



Key messages

- Definitions are varied and diverse
- There is a lack of consensus
- There is some research showing small beneficial effects on clinical outcomes in some patient populations
- Larger studies with increased methodological quality are needed to provide more definitive evidence.



Key messages

- One study involving the treatment of patients with traumatic brain syndrome noted some adverse effects of the treatment.
- Further research is required to build knowledge about this area of practice.



What does this mean in practice?

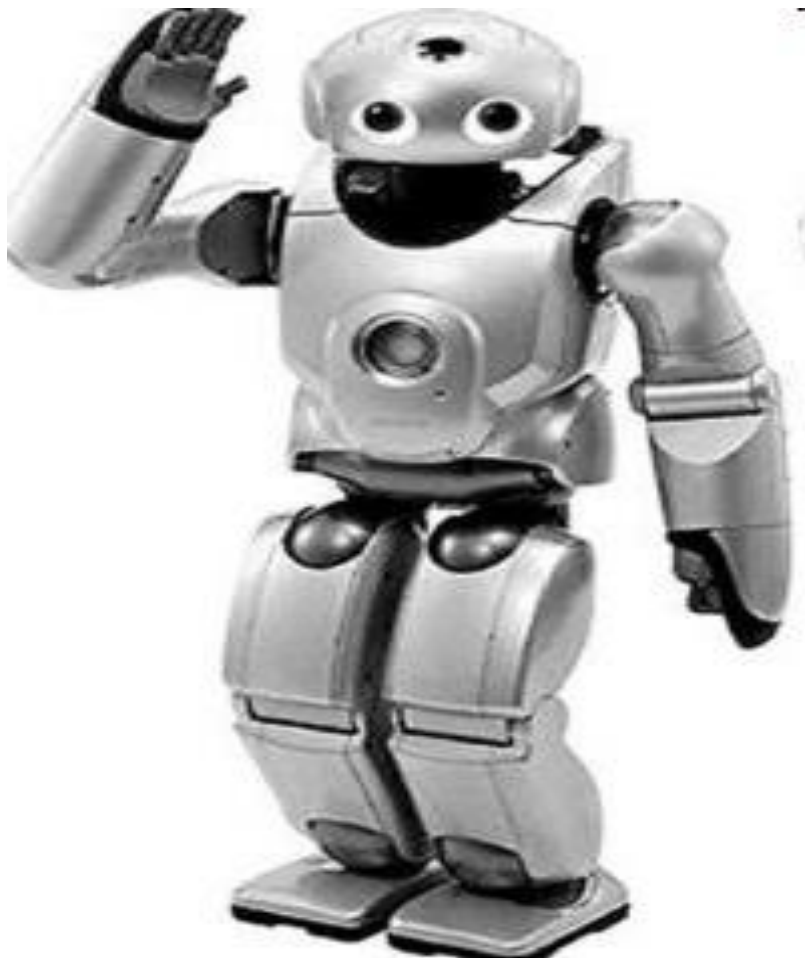
- We can say to patients or the media that some people have experienced beneficial effects on clinical outcomes
- We think its quite a safe treatment technique
- **We need to do more large scale research**

<http://www.brighton.ac.uk/ncor/summaries/Osteopathy>



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The future



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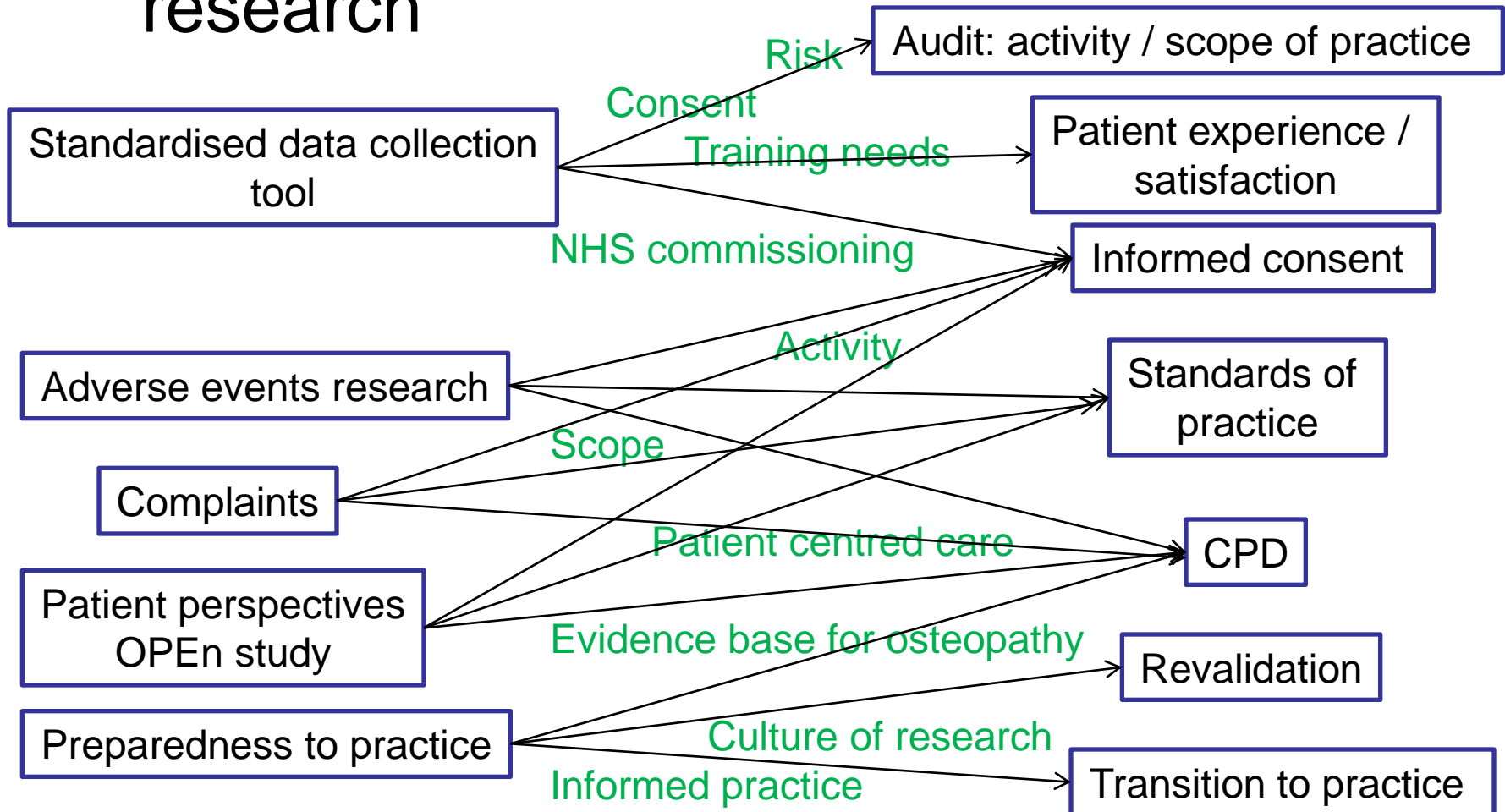
The future

- Reflecting the current needs of the community
- Using work that has already been done that is useful to us
- Collaborating with others
- Planning ahead, setting our own research agenda



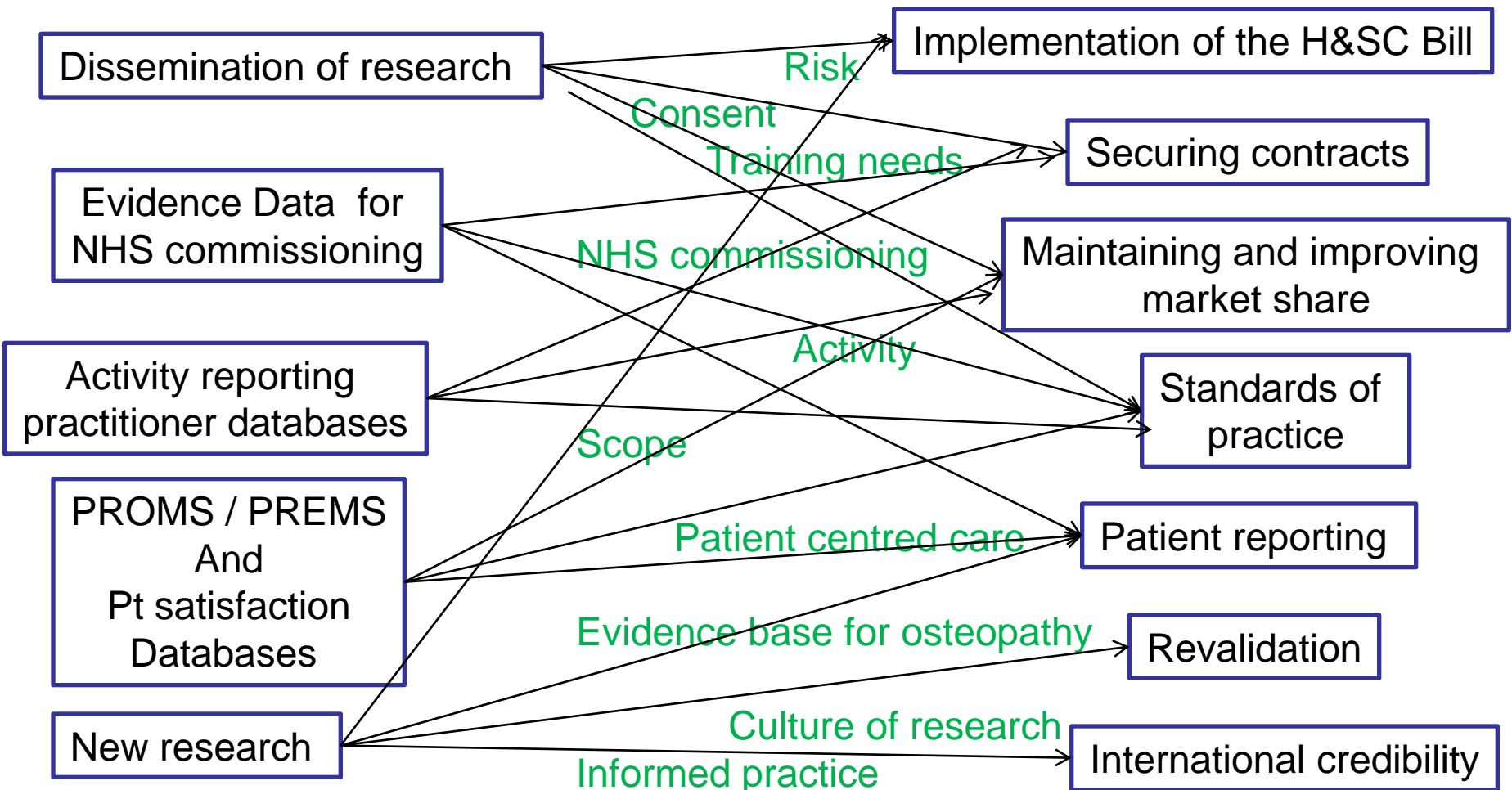
UK Commissioned research

Current key issues



Current and future Research

Future key issues



3 year strategic plan

- **Short term**

- re-organise structure of NCOR - skilling up
- secure PhD studentship
- complete research priorities consensus study
- re-design website – accessibility/multi media



3 year strategic plan

- **Short to medium term**
 - implement national standardised data collection
 - implement a national patient reported outcomes facility
 - consider and facilitate work on research priorities



3 year strategic plan

- **Ongoing**
 - advisory service for researchers
 - research governance standards and advice
 - liaison, collaboration, promotion and networking
 - securing funding where possible



3 year strategic plan

- **Long term**
 - Generating income
 - Securing contracts for large scale research projects



How can we encourage and sustain osteopathic research?

By showing that research can and does:

- promote and optimise patient care
- promote safe and effective practice
- help business



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**NCOR needs to make
research accessible and
relevant so that it can be
used easily**



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