Integrity in Medical Research & Publication

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Scientific dishonesty, misconduct & fraud

- Public & scientific community more concerned
- Grey zone between scientific dishonesty & good scientific practice
Scientific dishonesty, misconduct & fraud

- Personal honesty & intelligence not necessarily linked

- Historical examples – polar expeditions / anthropology / natural sciences / humanities
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- Piracy
- Plagiarism
- Fraud
Scientific dishonesty, misconduct & fraud

Q.1

- Piracy?
- Plagiarism?
- Fraud?
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Q.2. Why does it occur?
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Q.3

Why is dishonesty in research inappropriate?
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Q.4

Terminology

- ‘Premed syndrome’?
- Gift, guest or honorary authorship?
- Ghost authorship?
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Q.5 Terminology

- Slanted referencing?
- Redundant / dual publication?
- Salami slice publication?
Q. 6

- How many authors should you include in a paper and why?

- What are the minimum authorship requirements?
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- **Piracy**: deliberate exploitation of ideas without acknowledgement

- **Plagiarism**: copying of ideas, data or text without permission / acknowledgement
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A.1

Fraud

deliberate deception

usually invention of data

(RCP)
Why does Scientific dishonesty, misconduct & fraud occur?

- Most authors not informed on ethics
- Not addressed in under / postgraduate education
- No formal guidance
- Word of mouth – good / bad role models
Why does Scientific dishonesty, misconduct & fraud occur?

A.2

- Measure of performance
- Funding input & research output
- Academic rewards system
- Clinical Governance / CPD
- Prevalence Seniors = Juniors
Why is Scientific dishonesty, misconduct & fraud inappropriate?

- Mislead direction of clinical research
- Wasted research funds, time & effort
- May influence dangerous interventions
- Encourages further deceitful behaviour
- Inspires a fraudulent work environment
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A. 4

Terminology

‘Premed syndrome’

- Cheating in medical school
- Dishonesty during residency training
Terminology

Gift, guest or honorary authorship

Inclusion of authors, usually senior colleagues who have at most had a peripheral role.
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Terminology

Ghost authorship

- Failing to include an author
- Generally perceived as deserving
- Satisfies acceptable authorship criteria
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Terminology

- Slanted referencing
- Disregard of unsupportive articles
- Selective application to substantiate discussion to establish evidence of originality
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**A. 5**

**Terminology**

Redundant / dual publication

- Submitting same or similar article to different journals
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A. 5

Terminology

Salami slice publication

- Slicing of data into thinner and thinner slices
- >1 publication from the same information
- Relatively common – seen in theses
- <1/3 deliberate / to conceal previous work
To reduce Scientific dishonesty, misconduct & fraud

What are authorship criteria? Q. 6

- Disputes more frequent
- Contributed to creative process
- Preparation of manuscript
- Read final paper
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Grey Zone!

- Sensible selection of data - suppression of inconvenient results
- Justifiable serial & redundant publication
- Appropriate / twisted statistics
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**Grey Zone!**

- Fair quotation or plagiarism
- Slanted references
- Americans ignore everything non-US
- British ignore everything not in English
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**What else happens?**

- Removal of data from scientific bio-bank
- Unauthorised publication - including superiors as authors without their knowledge or consent
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What else happens?

- Exclusion of potential authors
- Inadequate citations with ‘priority lifting’
- Inadequate agreements on access to research data for co-workers
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What is duplication?
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What is duplication?

- Publishing results of a single study in >1 journal
- Practice not uncommon
- Salami slice publication - parcelled out to different journals
- Vancouver rules - cannot be considered if submitted / published
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What is being done about it?
Scientific dishonesty, misconduct & fraud

What is being done about it?

- COPE
  (Committee of Publication Ethics)

- OSTP
  (Office of Science and Technology Policy, USA)
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What is being done about it?

- Nordic countries - National independent committee & High Court Judge

- Strong institutional guidelines for procedures, inquiry & investigation, reprisals, whistle-blowing

- Ethics committee
Scientific *dishonesty, misconduct & fraud*

What is being done about it?

- European Law
- Courses in scientific practice & dishonesty
- Obligatory
Publish or perish!
(Angell 1986, Ann Intern Med)

- Reduce offences / foster an environment
- Focus on individual researcher & faculty
- Informed on institutional policy
- Improve institutional diagnostic, therapeutic & preventative measures
Publish or perish!
(Angell 1986, Ann Intern Med)

- Substance over volume:
  Ceiling on presentations & publications

- Editors not policemen

- More attention to misconduct / training

- Not a witch hunt - ‘Innocent until proven …..
Scientific dishonesty, misconduct & fraud

At the end of the day!

- ‘Scientists are human’
- ‘the only ethical principle which has made science possible is that the truth shall be told all the time’
- ‘Ethical publication will depend on the ethical investigator’