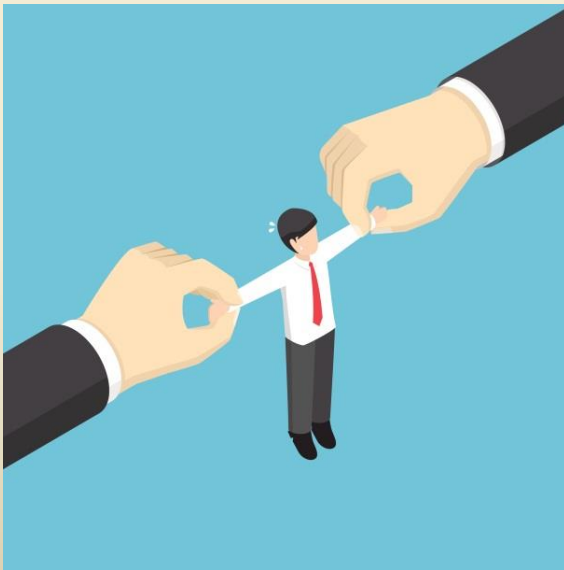




Ministry of Health and Sports

# Conflict of Interest in Biomedical Research



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Date: 8 July 2020



# Disclosure

The Powerpoint slides are adapted from the previous RCR workshop resourced by Prof. Pe Thet Khin.

There is no financial conflicts of interest for this presentation



# Presentation outline

- Definitions of Conflict , Interest, COI
- Types of conflicts
- COI influences on Research
  - Research Design
  - Data Collection and Interpretation
  - Dissemination of research results
  - Patient Safety and Wellbeing
- Roles of IRB
- IRB Conflicts of Interest



# Conflict

A situation in which there are opposing demands or ideas and a choice has to be made between them



# Interest

Something that brings advantages to or affects someone or something (*commitment, obligation, duty or goal associated with a particular social role or practice*)

## **Researcher's Primary Interest**

- Goals of profession
- Producing generalizable knowledge
- Ensuring the safety of research subjects
- Disseminating research results

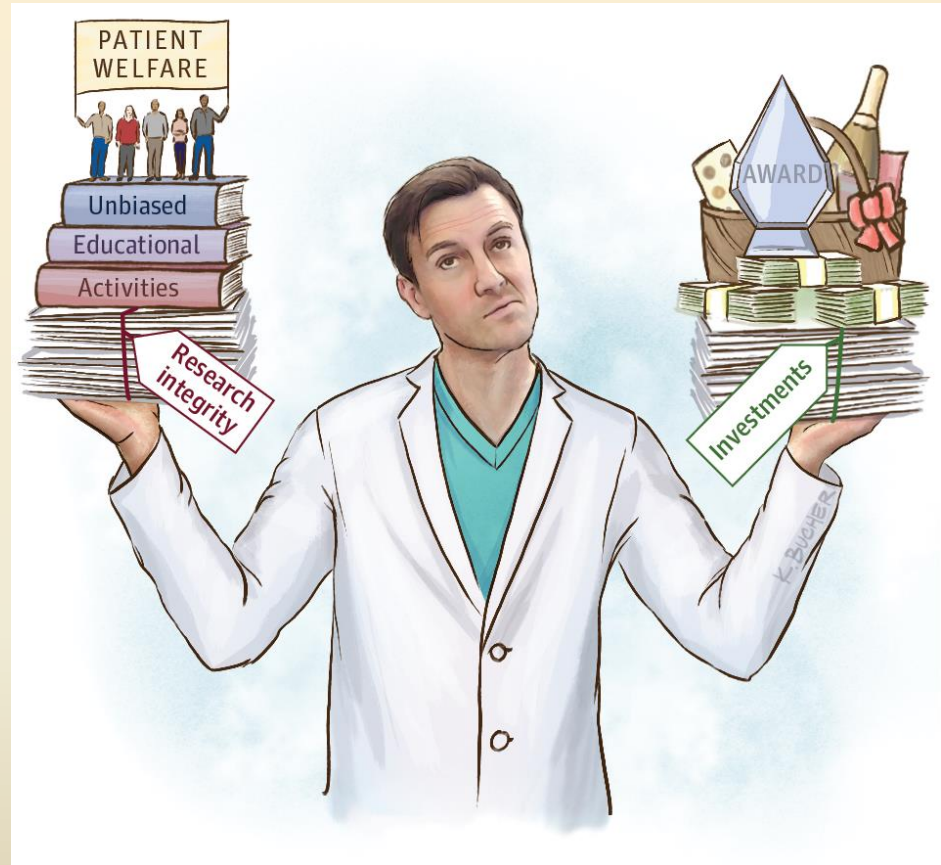
## **Secondary Interest**

- Publishing
- Spending time with family members
- Obtaining a good income
- Political activism/volunteerism
- Obtaining future research funding
- Pursuing in religion, traveling, social activities, etc.



# Secondary Interests

- ❑ Secondary interests **on their own are not bad or unethical**
- ❑ Usually, secondary interests are good and often **praiseworthy** –
  - Time devoted to one's family
  - Lobbying for a political belief
  - Volunteering for a local charity



# Problematic Secondary Interests

- What makes secondary interests problematic is their ability to **unduly influence decisions** about an individual's primary interest
- A conflict of interest occurs when a secondary interest **distorts or has the potential to distort a judgment related to a primary interest**





# COI

## Definition of Conflict of Interest

*"A conflict of interest is a set of conditions in which professional judgment concerning a primary interest (such as a patient's welfare or the validity of research) tends to be unduly influenced by a secondary interest (such as financial gain)."*

D. F. Thompson, *Understanding Financial Conflicts of Interest*, 1993





- Conflicts are not inherently bad and they are to be expected
- It is how they are handled that can lead to untoward, inappropriate, or bad outcomes
- Having a COI does not make you a bad person. It happens to everyone

For researchers, some secondary interests might threaten:

- Valid research design
- Data integrity
- Interpretation of data
- Dissemination of results
- Patient safety



# Types of Conflicts

- **Conflict of Effort (commitment):** demands from separate entities jeopardize the duties and responsibilities associated with one of more of those entities *(e.g. academic duties against other activities)*
- **Conflict of Conscience:** is created by having to maintain objectivity in the face of your convictions which go against the grain of something you must act on or evaluate *(e.g. during peer review)*



# Apparent Conflicts of Interest

- The mere appearance of a conflict may be just as serious and potentially damaging as an actual distortion of objectivity
- Reports of conflicts based on **appearances can undermine public trust** in ways that may not be adequately restored even when mitigating facts of a situation are brought to light
- Apparent conflict, therefore, should be evaluated and managed with the same vigor as known conflicts to avoid negative perceptions



# Financial Conflicts

- Money is multipurpose
- Universally recognized as a good
- A key motivating factor
- Relatively easy to regulate
- Money as a gift, salary, consulting fees, or other means



# Financial Interest vs Research Design

Data suggest that:

- Industry-sponsored research **is no worse methodologically than** that sponsored by non-profit organizations (may even be more methodologically rigorous)
- Industry-sponsored research was **more likely to be double-blind and to report adverse events, and leads to positive results**
- Of 11 meta-analyses, 9 reported that industry-sponsored trials were **significantly more likely to yield pro-industry results**



# Financial Conflicts and Data Interpretation

- Industry commits resources only to clinical research that is likely to yield positive results
- Industry terminates large randomized studies early that are likely to have side effects and less likely to be successful or to generate huge profits
- Having financial ties with industry does distort the judgment of researchers
- Not necessary fabrication of data, but could influence interpretation of data





# Financial Interest and Researcher Interpretation

	Support of Ca Blockers	Neutral	Critical of Ca Blockers	P Value
Financial Interest in Ca Channel Blockers	96%	60%	37%	<0.001
Financial Interest in Any Manufacturer	100%	67%	43%	<0.001
Honorarium	75%	40%	17%	<0.001
Research Funding	87%	40%	20%	<0.001
Employment or Consultation	25%	33%	17%	0.45

**Financial conflicts are associated with altered outcomes of research.**

- Stelfox et al.(1998) reviewed the literature in 1995 and 1996 for reports on the safety of calcium channel antagonists.
- They found that 100% of authors of reports supporting calcium channel antagonists had financial relationships with drug companies, while only 43% of authors of reports critical of the drugs had such connections with drug companies.
- One lesson is that it would be valuable to know if a published study was supported by industry.



# Financial COI and Researcher Interpretation

- Complex situation
- Money talks
- Money affects judgment
- Not uniformly or consistently



# Financial Conflicts and Dissemination of results

- Industry-funded clinical research that produces positive results are more likely to be published compared to government-funded clinical research
- Results of Placebo-controlled trial:
  - Experimental drug more effective than placebo:  
19/21 Published (90.5%)
  - Experimental drug not more effective than placebo:  
6/21 Published (28.6%)
  - It is not known if it is due to publication bias or industry withholding negative data



# Financial conflicts and Patient Safety

- No data on overall safety of clinical research
- This does not necessarily indicate that a conflict of interest impacted researcher's judgment or patient safety
- Raises questions and concerns, but deaths are not necessarily due to the presence of conflicts of interest.



# Protection of financial COI

- Disclosure
    - to institution/ IRB/COI Committee
    - to patients
    - in journal
  - Management
    - Data Safety and Monitoring Boards (DSMB)
    - Independent Consent Monitors
  - Prohibitions - against types, amount of financial interest
    - By removing researchers from the study
- ❑ No consistent standards for disclosure and prohibitions of financial interests
  - ❑ Researchers are not aware of well-informed of disclosure policies



# Protection of Financial COI

- No data that patients:
  - understand disclosure of financial interests
  - understand how it might affect judgment s
  - will change their actions regarding participating in research
- More and more people are talking about wanting to disclose financial interests of researchers to research participants





# Researcher Financial Interests

- Are common – 25% to 33 % of researchers
- Financial interests appear to influence researcher interpretation and data dissemination
- Financial interests do not appear to influence research design
  - ? Influence data collection?
  - ? Influence patient safety?



# Non-financial conflicts

- Career advancement
- Publishable results
- Service to patients or students
- Fame
- Power
- Relationships
- Friendships



# Challenges of IRB

- Identify conflicts of interest
- Determine extent to which these COIs may bias or appear to bias research
- Manage these COIs to protect both the integrity of the research and the welfare of the research subjects
- Identify cases where management of COI is not possible and where the proposed research cannot be done
- Evaluate the recruitment process
- Assess the ability of potential subjects to understand the implication and context of the research



# Challenges of IRB Cont'd

- The integrity of the process of informed consent
- The safety of the subjects
- The design of the study
- The integrity of the performance of the research and of the interpretation and presentation of the results
- The ultimate value of the research
- Conflicts of interest of Investigators (PI and other researchers)
- Institutional conflicts of interest
- CTO Conflicts of interest
- IRB conflicts of interest



# IRB Conflict of Interest

- COI of individual members
- Conflicts on individual protocol
- Conflicts with individual investigators
- Structural and reporting conflicts
- Financial Conflicts of Interest
- Personal or professional relationships
- Strong beliefs or opinions
- Past experience which precludes objectivity



# Conflicts of IRB as an entity

- Are there protocols an IRB should not review?
  - Because of their reporting structures
  - Because of the potential perception of a COI by those outside the institution
  - Because of pressure has been put on the IRB
  - Because of the past interaction with investigator or sponsor which may unduly influence the panel
- What should the IRB/institution do if this problem arises?





# Summary COI issues

COI is an evolving area of concern

Many issues for investigators/Institutions / CTOs /IRBs and individual IRB and individual CTO members to consider:

- More questions than answers
- Ethical questions
- Legal questions
- Practical questions of management and documentation



# Some Principles and Guidelines

- COI increase the temptation to commit misconduct
- COI increase the risk of unintentional bias
- COI can lead to harmful misconceptions of scientists, scientific community and scientific enterprise
- Avoid and minimize conflicts
- Disclose interests
- Manage potential for conflicts



# Conclusion

- Research organizations and their CTOs and IRBs will be increasingly asked to consider issues of conflict of interest and to decide how to manage, reduce, or eliminate their effect on the integrity of research involving human subjects and on the safety and welfare of the subjects



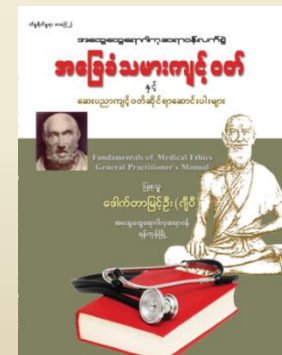
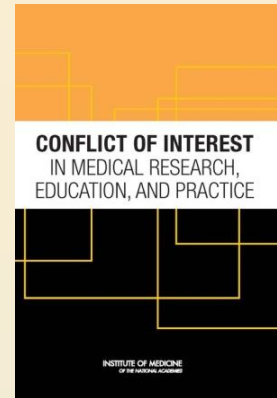
# Further readings

1. Bernard Lo and Marilyn J. Field, (Eds) 2008. Conflict of interest in Medical Research, Education, and Practice. Institute of Medicine. The National Academies Press, Washington D.C, USA.

2. COI:Office of research integrity, University of Alaska Fairbanks.

<https://www.uaf.edu/ori/responsible-conduct/conflict-of-interest/index.php>

3. အထွေထွေရောဂါကုဆရာဝန်လက်စွဲ အခြေခံသမားကျင့်ဝတ် ဒေါက်တာမြင့်ဦး (ဂျီပီ)။ အမေ့သားထိုက်စာပေ၊ ၂၀၁၉။



**Questions, Comments & Suggestions  
are welcome**

