



## Deaths whilst on pharmaceutical heroin: look-back on the 'Old British System'

HEROIN ON TRIAL, 31 May 2018

Basak Tas
National Addiction Centre
King's College London

### Overview

 Introduction: Why are we interested in historic data?

 Methods: selection of time period and relevant studies

Results: mortality rates

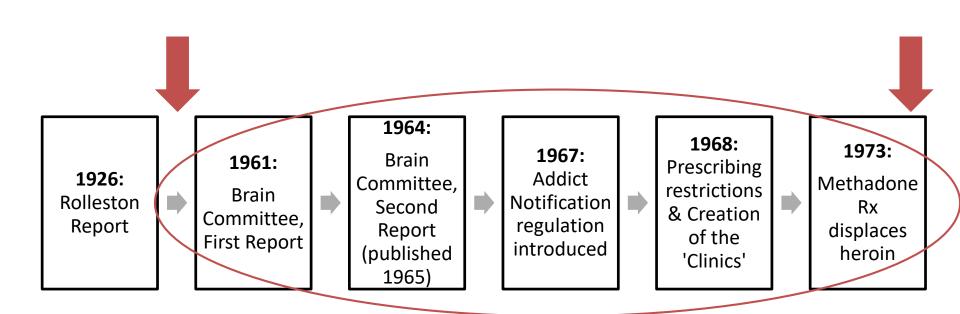
Discussion: other similar studies

# Why are we interested in historical mortality data?

- Adds to understanding, and to discussion, of use of pharmaceutical heroin for the treatment of addiction
- This was a special time of prescribing practices...

...where relevant data actually exists

## Timeline and period of interest



## **Changes to User Identity**

Before th

> Fewer

➤ Usually aged, f



middle-

After 195

➤ New gr

>1st case

fied in 1960

#### All Heroin Was Pharmaceutical Heroin

we have never found – or received reliable evidence – of heroin being trafficked in London in any other form than a tablet

Cooke, Head of London Police Drug Squad, 1962



### Literature Search

- MEDLINE, Embase and PsychINFO
  - observational, follow-up and case reports
- Extracted data included:
  - recruitment years;
  - study length (or follow-up period);
  - mortality in absolute numbers (or % if available);
  - type of treatment available and other demographics (if available);
  - Annual mortality rates were calculated based on the period of recruitment of the studies.

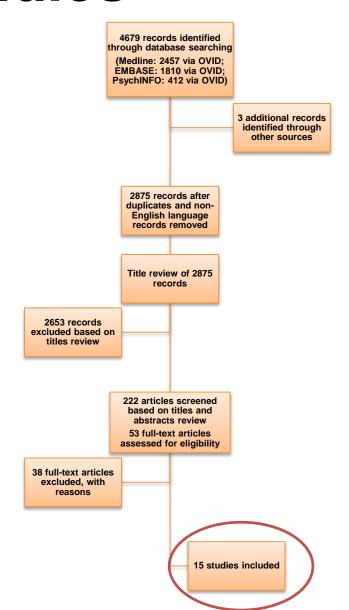
### Included studies

Database search: 4979

Hand-searching: 3

After removal of duplicates and non-English language records: 2875

Included Studies: 15



## **Overall Findings**

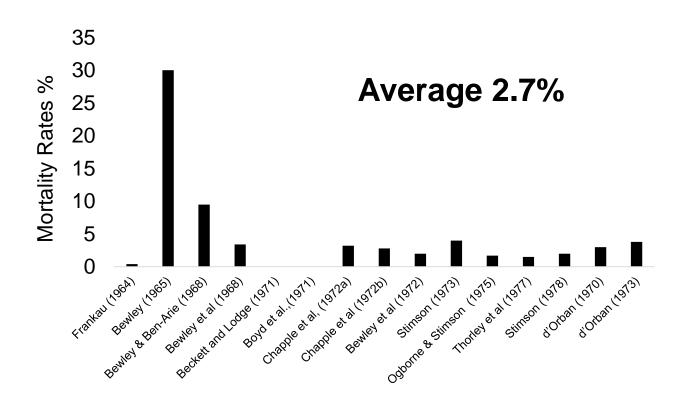
Cohort size varied (n=33 to n=397)

Length of study varied (6 to 84 months)

Mortality per study varied greatly (0% to 30%)

Age relatively low (average patient 25 years old)

## **Annualised Mortality Rates**



## **Cohort Studies**

| Study                          | Sample<br>Size | Follow-<br>up<br>period<br>(months) | Mortality<br>% | Annual<br>Mortality<br>(%) |
|--------------------------------|----------------|-------------------------------------|----------------|----------------------------|
| Stimson<br>(1972)              | 101            | 12                                  | 4              | 4                          |
| Ogborne<br>& Stimson<br>(1975) | 128            | 42 to 48                            | 6.2            | 1.6 to 1.8                 |
| Thorley et al (1977)           | 128            | 72                                  | 9              | 1.5                        |
| Stimson<br>(1978)              | 128            | 84                                  | 12             | 2                          |
| Oppenhei-<br>mer (1994)        | 128            | 264                                 | 38             | 1.8                        |

| Study                  | Sample<br>Size | Follow-up period (months) | Mortality<br>% | Annual<br>Mortality<br>(%) |
|------------------------|----------------|---------------------------|----------------|----------------------------|
| Chapple et al, (1972a) | 108            | 60                        | 16             | 3.2                        |
| Chapple et al (1972b)  | 108            | 72                        | 18             | 3                          |

| Study             | Sample<br>Size | Follow-up<br>period<br>(months) | Mortality<br>% | Annual<br>Mortality<br>(%) |
|-------------------|----------------|---------------------------------|----------------|----------------------------|
| d'Orban<br>(1973) | 66             | 12                              | 3              | 3                          |
| d'Orban<br>(1973) | 60             | 48                              | 15             | 3.8                        |

#### **Deaths – How Prevalent?**

Deaths occurred between the 1960s to mid-1970s, when take-home heroin prescribing prevalent:

- young cohorts;
- easy access to treatment;
- pharmaceutical heroin was both the drug of use and mainstay, primary medication

## Can We Draw Comparisons?

#### International situation in 1960s/70s?

Study from the US:

> 1% mortality per year during similar period

## A 20-Year Follow-Up of New York Narcotic Addicts

George E. Vaillant, MD, Cambridge, Mass

A group of 100 New York narcotic addicts first admitted to the US followed for 20 years. Over the period, 23% died—mostly of unnatustatus of 10% is uncertain; and, depending on definition, 35% to

as they mature. The present data suggest that unless adequate therapeutic intervention is made, there appears to be a significant number of addicts who will remain addicted, alive, and in trouble well past age 40. Few addicts recovered "spontaneously" and success rates of even 20%

#### Modern forms of prescribing heroin in UK?

#### Review of supervised heroin RCTs

> 0.7% mortality across all trials

#### Belgian study:

No deaths after 12m follow-up



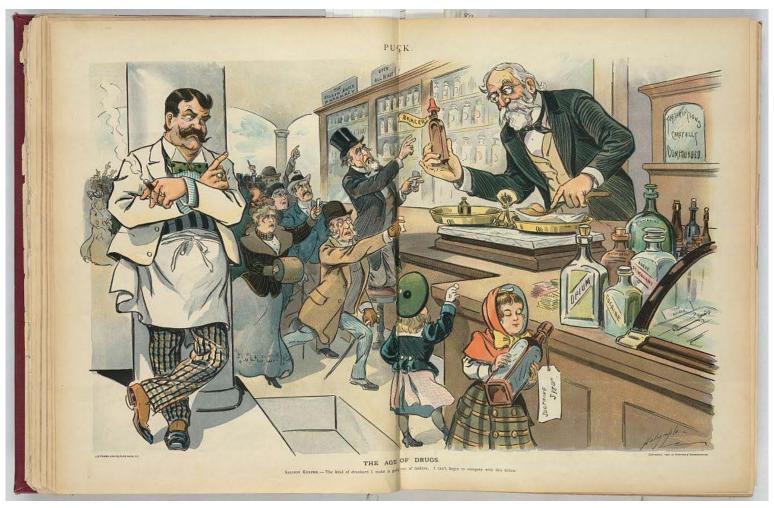
The British Journal of Psychiatry (2015) 207, 5–14. doi: 10.1192/bjp.bp.114.149195

#### Review article

Heroin on trial: systematic review and meta-analysis of randomised trials of diamorphine-prescribing as treatment for refractory heroin addiction<sup>†</sup>

John Strang,\* Teodora Groshkova,\* Ambros Uchtenhagen, Wim van den Brink, Christian Haasen, Martin T. Schechter, Nick Lintzeris, James Bell, Alessandro Pirona, Eugenia Oviedo-Joekes, Roland Simon and Nicola Metrebian

## **Questions?**



Thank you basak.tas@kcl.ac.uk