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**Summary** A systematic search was conducted of mortality data from the 1960s and early 1970s, a time when diamorphine (pharmaceutical heroin) maintenance was the prevailing form of treatment for heroin addiction. 15 studies met the inclusion criteria. It was found that a great proportion of heroin-related deaths occurred in the treated population which was comparable to, or even greater than, the mortality rates typically reported in the international literature for the untreated condition or to more orthodox treatments today.

## Background

### Why 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.

### What is the 'British System'?

- Started from the Rolleston Committee recommendations, 1926.
- It was to allow patients to lead a 'fairly normal and useful life' while still taking opiates.
- It was an approach in medical practice doctor was legally able to prescribe opiate maintenance (usually injectable) which continued for decades.

'A practical solution for an almost non-existent problem'  
Thomas Bewley

### All Heroin was Pharmaceutical

- At this time, all heroin was pharmaceutical heroin.
- This did not change until the mid-1970s when significant imported heroin became available.

"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

### Changes to User Identity

#### Before the 1950s:

- 400-600 users in any one year
- 'therapeutic addicts'
- e.g. medical professionals, middle-aged, female

#### After 1950s:

- New group emerged
- 1<sup>st</sup> case under age of 20 identified in 1960!



## Methods

Databases: MEDLINE, Embase and PsychINFO

Types of studies: 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.

## Results

### 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 Data

- **8 studies** had an annualised mortality rate of between **2% and 4%**<sup>1-8</sup>
- 1 study had **30%**<sup>9</sup> *Anomaly?*
- 1 study had **7.5%**<sup>10</sup>
- 5 studies below **1.5%**<sup>11-15</sup>

- **Median 2.4%**
- **Average 2.7%**

## Conclusions

### Deaths – How Prevalent?

Great number of deaths occurred between the 1960s to mid-1970s, when take-home heroin prescribing prevalent.

- young cohorts;
- easy access to treatment;
- pharmaceutical heroin both the drug of (ab)use and the primary medication

### Can We Draw Comparisons?

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

20-year follow-up study → 1% mortality per year during the 1960s<sup>16</sup>

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

Review of supervised heroin RCTs → 0.7% mortality across all trials<sup>17</sup>

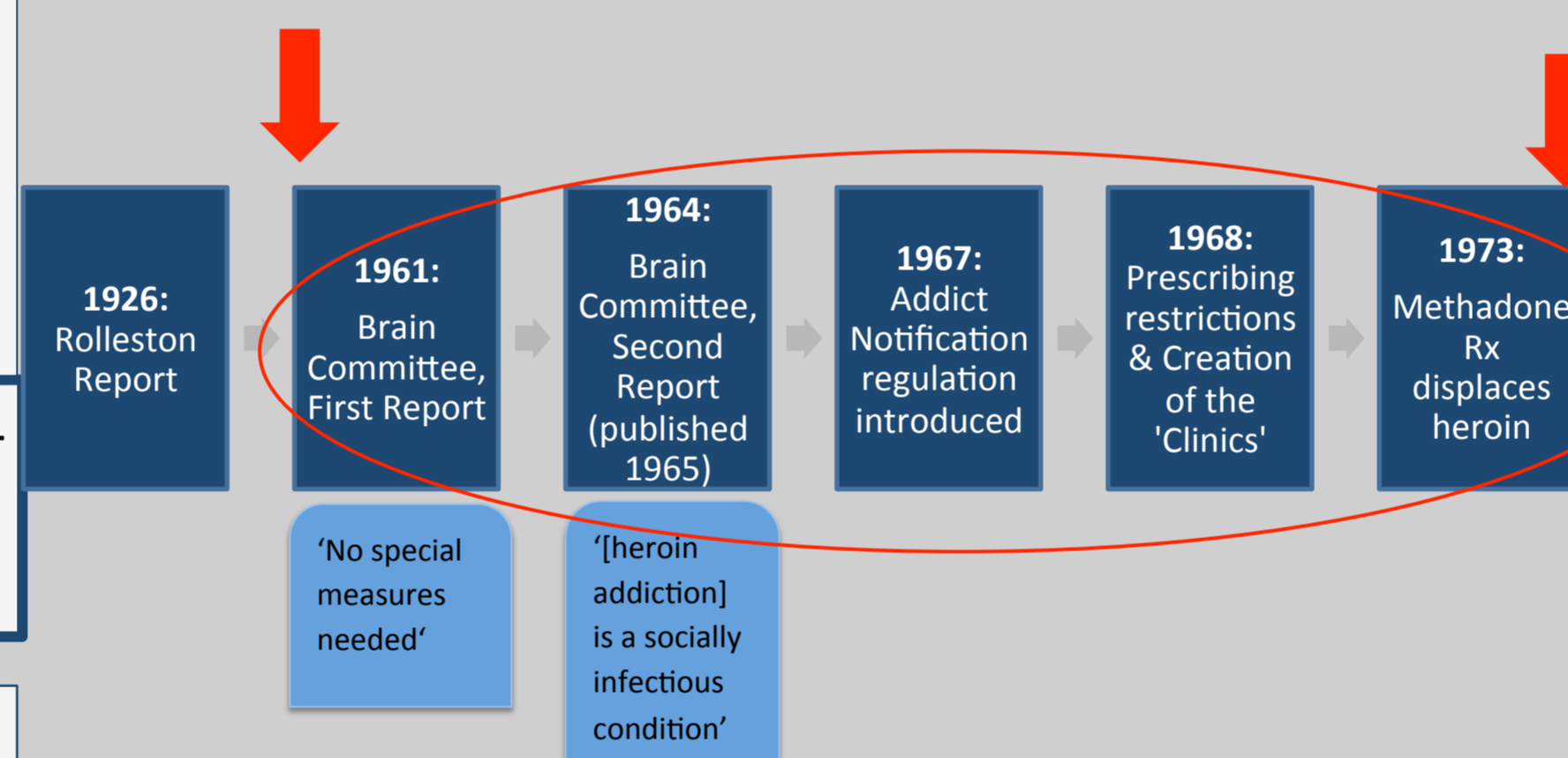


Figure 1: Timeline of period of interest

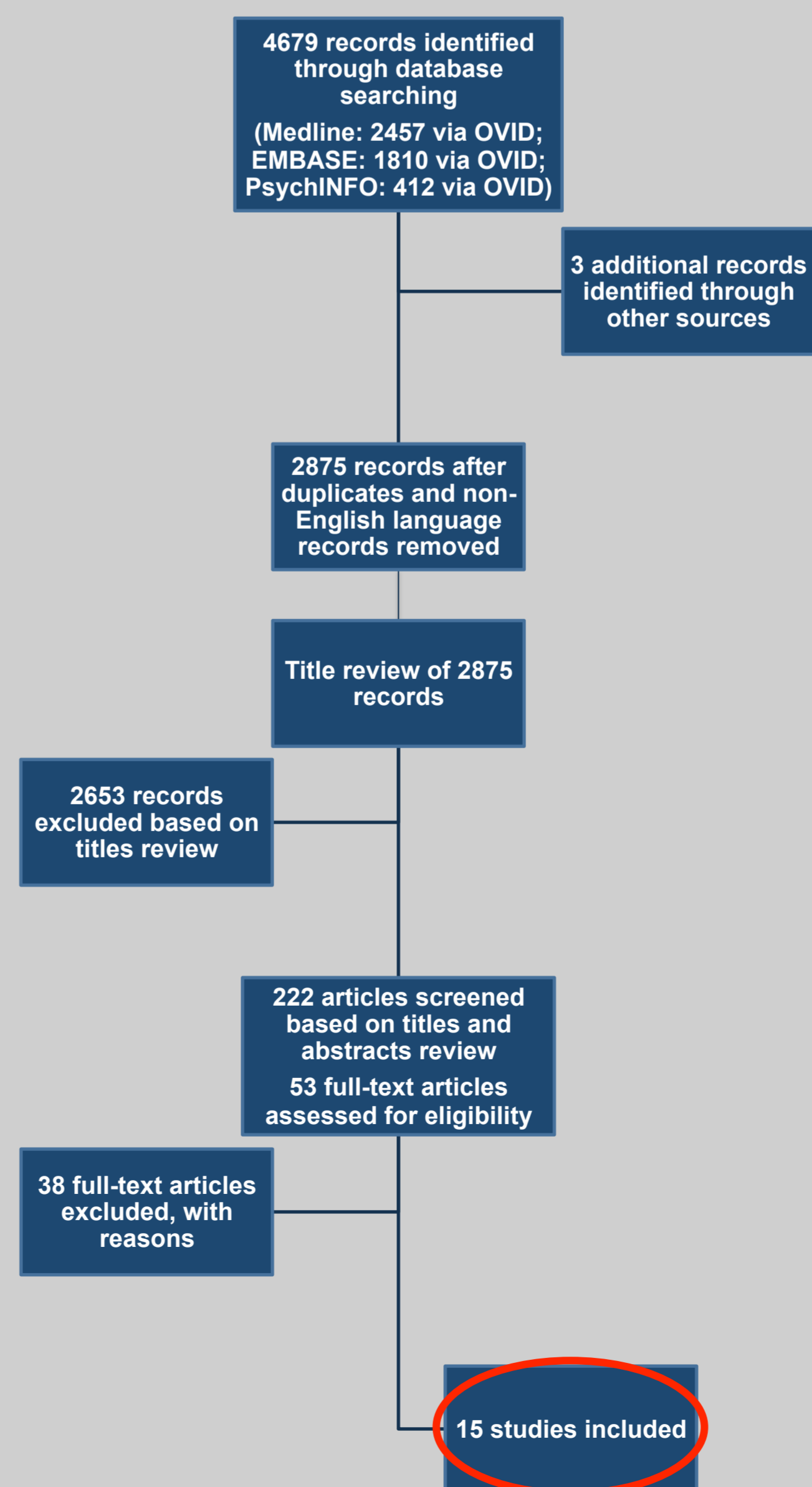


Figure 2: Flowchart of search results

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