Suicide Prevention and Postvention
Special Interest Day
Tuesday 26th May 2015, Royal College of Psychiatrists, London

What works and what may not work

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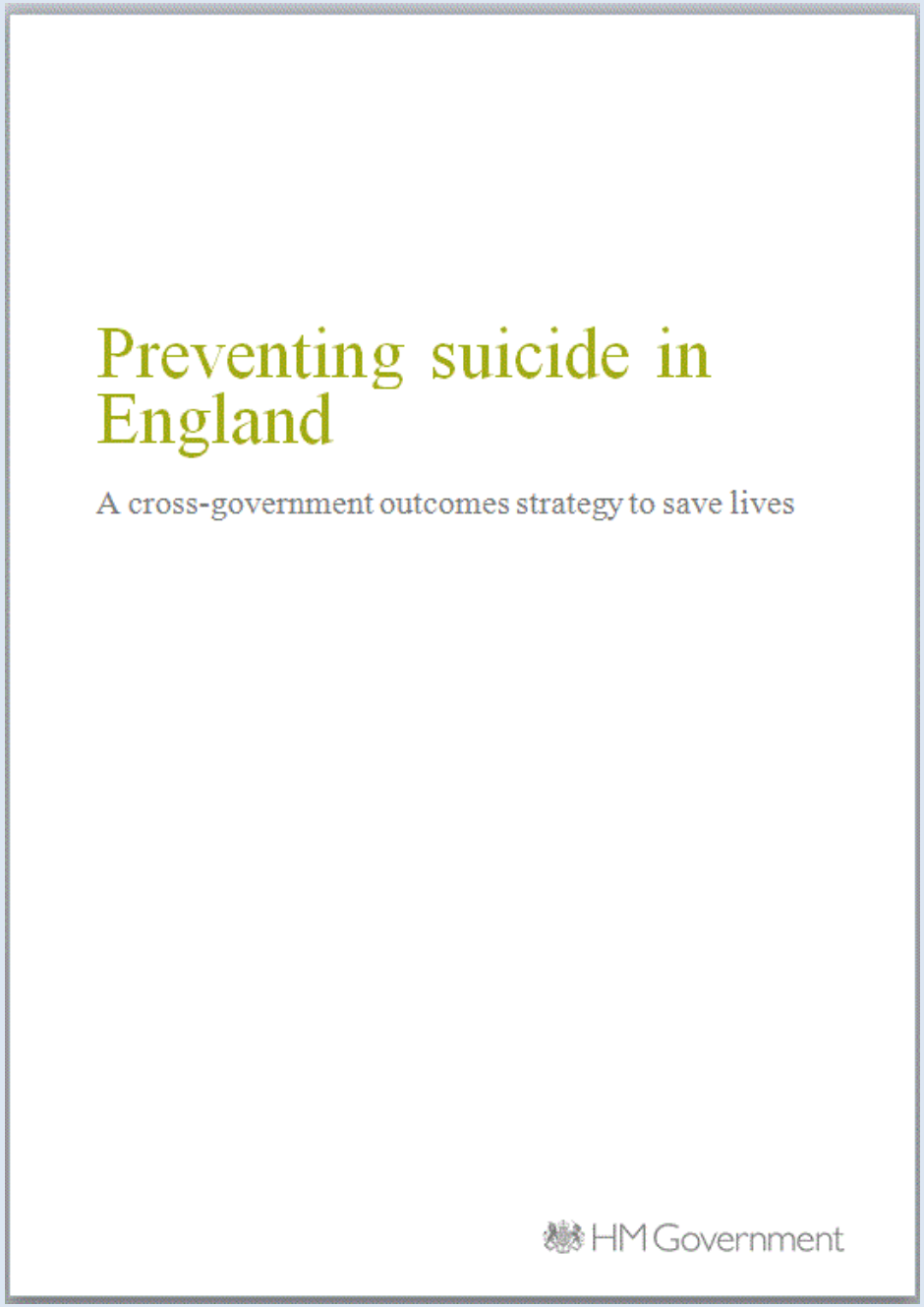
Size of the problem

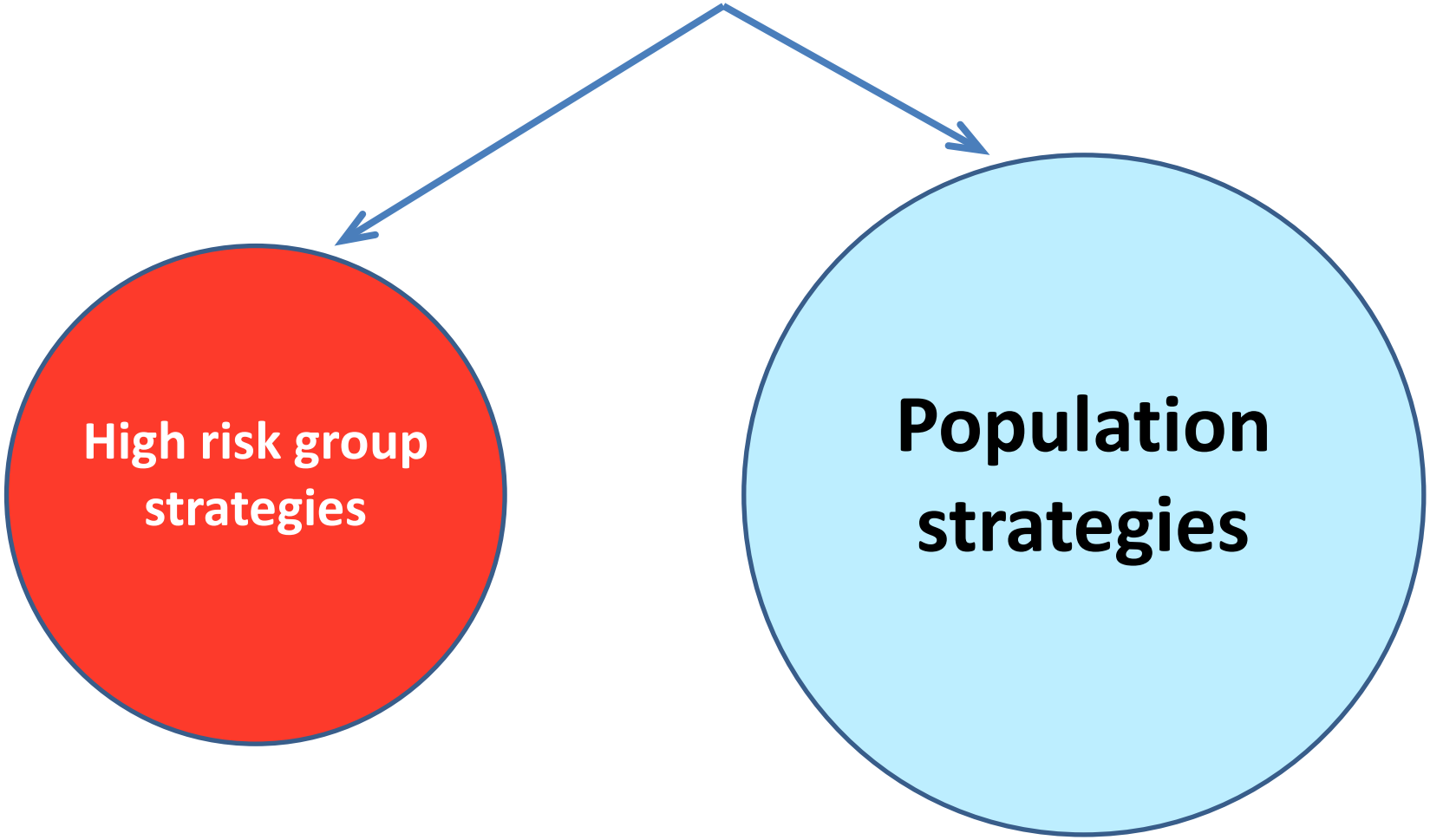
Number of deaths per year

England and Wales	**> 5000** (including open verdicts) **M:F ~ 3:1**
Worldwide	**~ 850,000 – 1 million**



Launched
September 10th 2012
World Suicide Prevention Day

Suicide prevention



Preventing suicide in England

Areas for action

1. Reduce the risk of suicide in key high-risk groups
2. Tailor approaches to improve mental health in specific groups
3. Reduce access to the means of suicide
4. Provide better information and support to those bereaved or affected by a suicide
5. Support the media in delivering sensible and sensitive approaches to suicide and suicidal behaviour
6. Support research, data collection and monitoring

People with mental health problems under the care of psychiatric services

National Confidential Inquiry data England 2000-2010

- General population suicide deaths: 49,532
- Individuals in contact with mental health services in previous 12 months: 13,390 (**27%**)

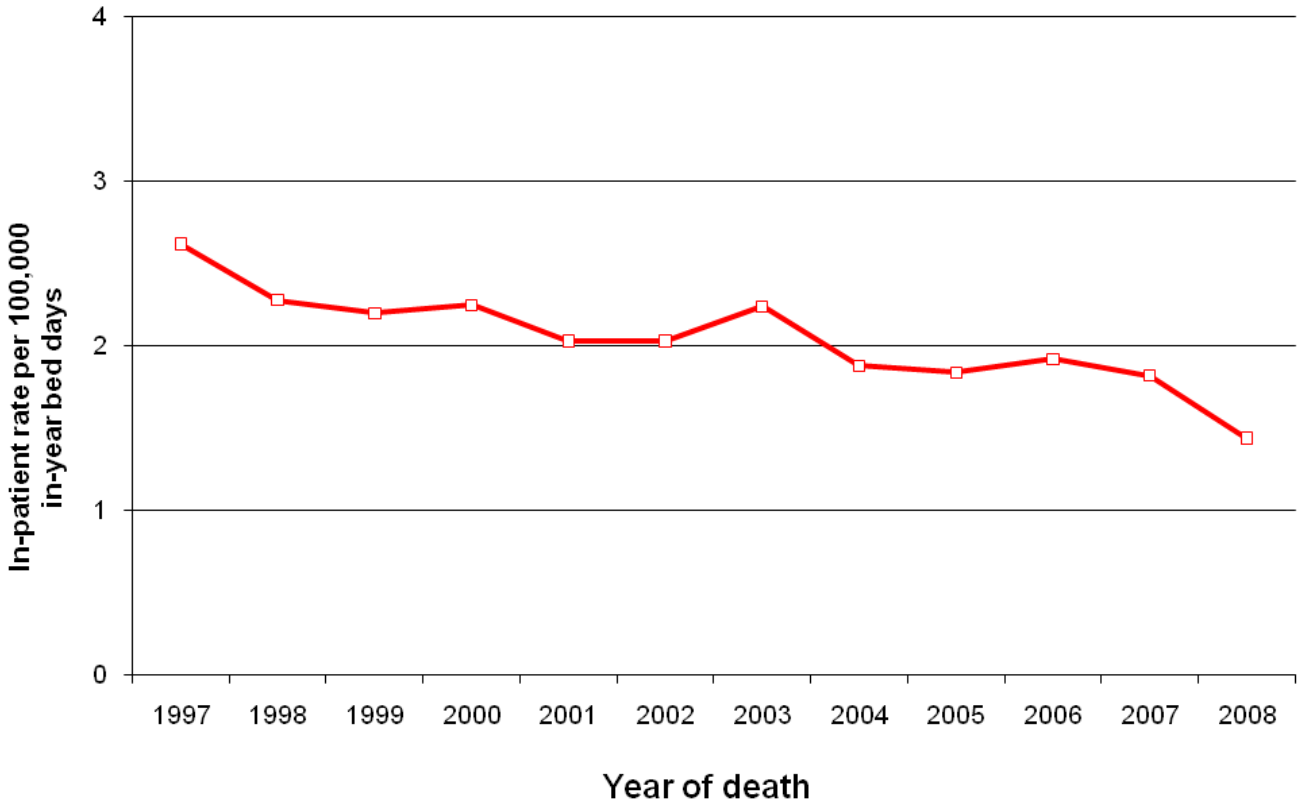
What works?

National policies and recommendations

- Removal of ligature points on inpatient units

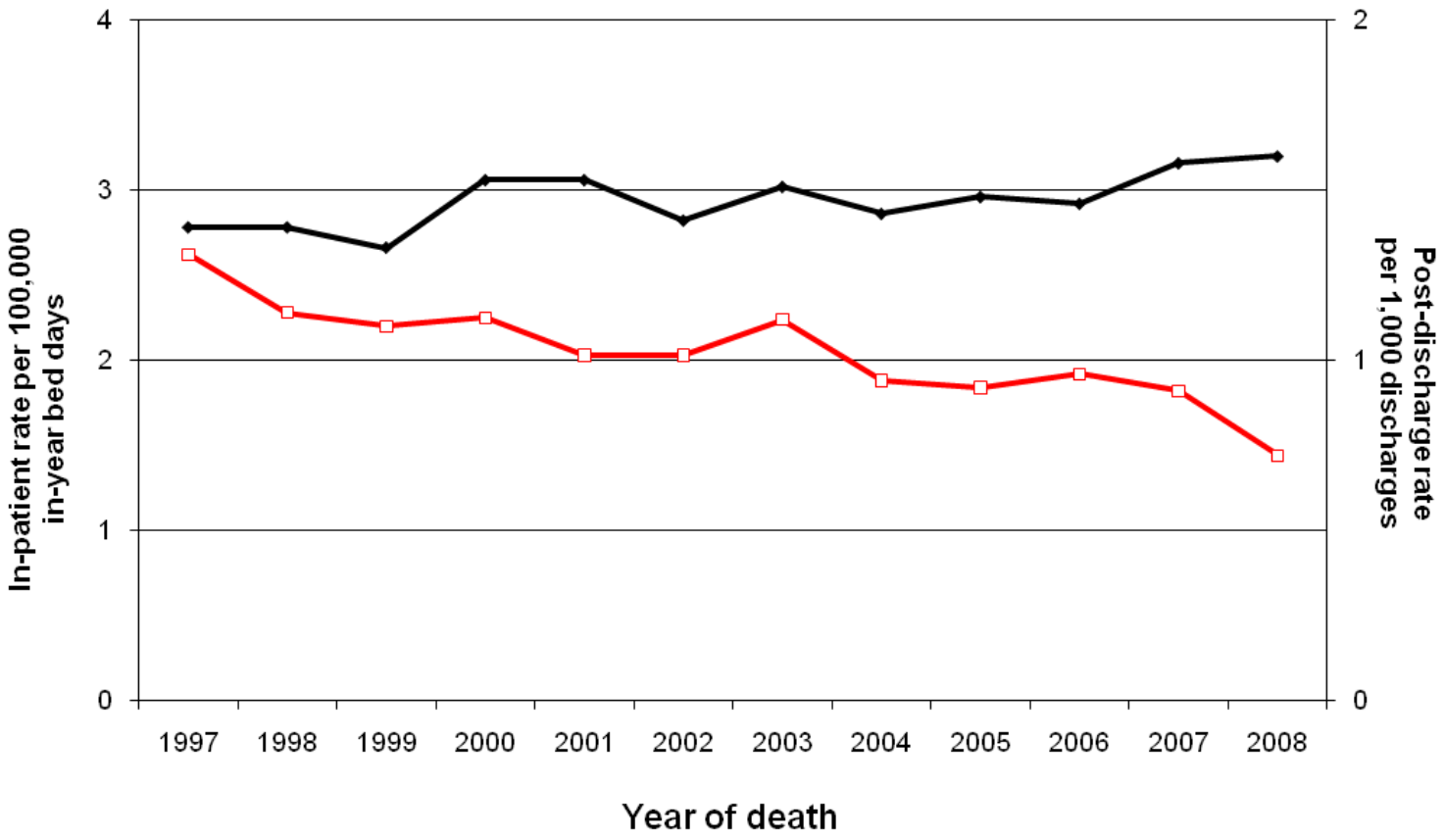
Safety First, 2001
12 Steps to a Safer Service

In-patient suicide



(Kapur et al. Psychological Medicine 2012)

In-patient and post discharge suicide



(Kapur et al. Psychological Medicine 2012)

What works?

National policies and recommendations

- Removal of ligature points in inpatient units

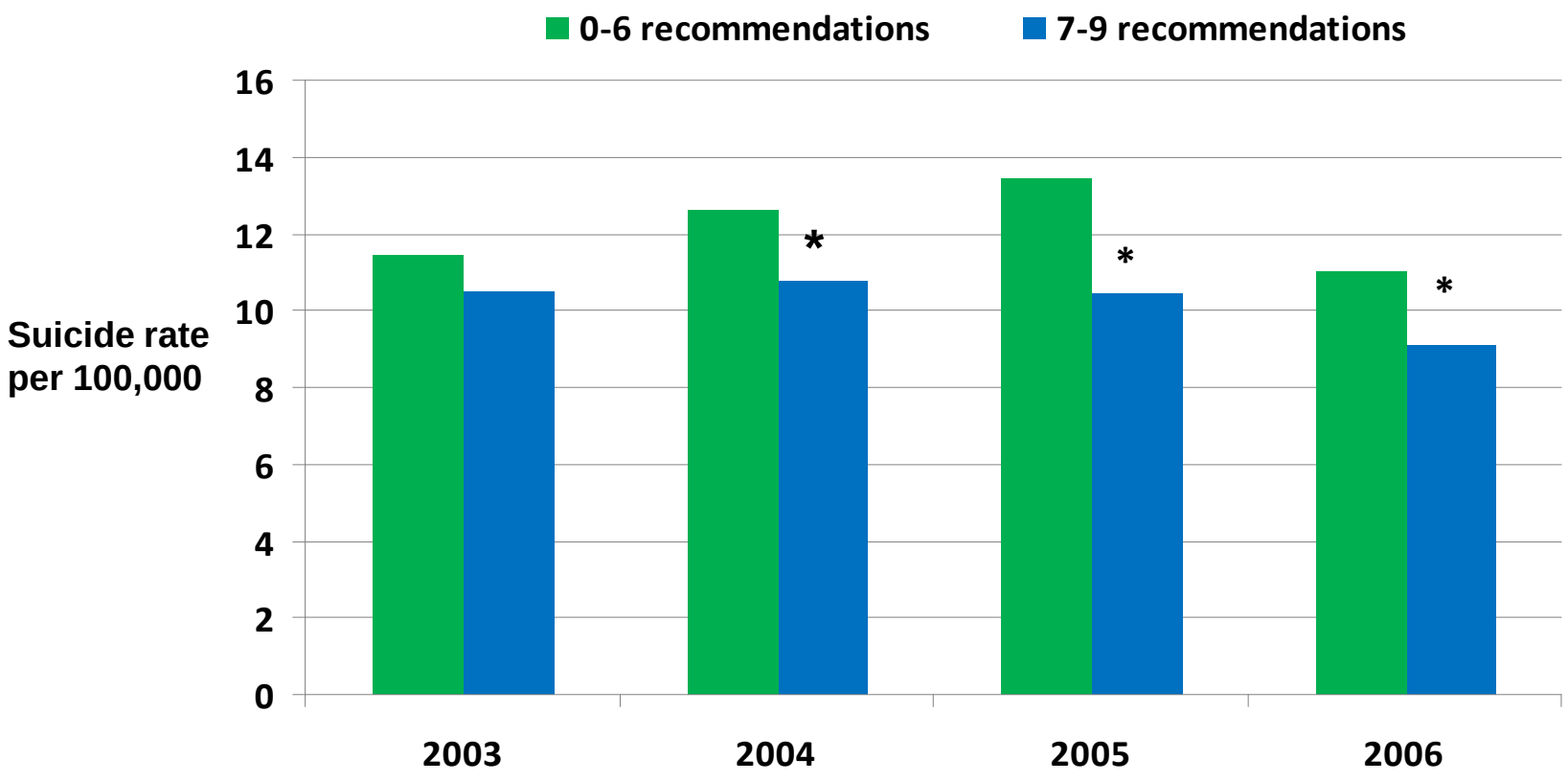
- Assertive outreach
- 24-hour crisis team
- 7-day follow-up
- Non-compliance
- Dual diagnosis
- Criminal justice information sharing
- Multi-disciplinary review
- Training in suicide risk management

Safety First, 2001
12 Steps to a Safer Service

Questions

- Do mental health services implement policies?
- Do they make a difference?

Do policies make a difference?



*** = significant difference p<0.05**

(While et al. Lancet, 2012)

Implementation of mental health service recommendations in England and Wales and suicide rates, 1997-2006

(While et al., 2012)

Reduced suicide rates were associated with:

- Provision of 24-hour crisis care
- Local policies on patients with dual diagnoses
- Multidisciplinary review after suicide

Services that did not implement recommendations had little reduction in suicides

Role of medication in prevention

BMJ

BMJ 2013;346:f3646 doi: 10.1136/bmj.f3646

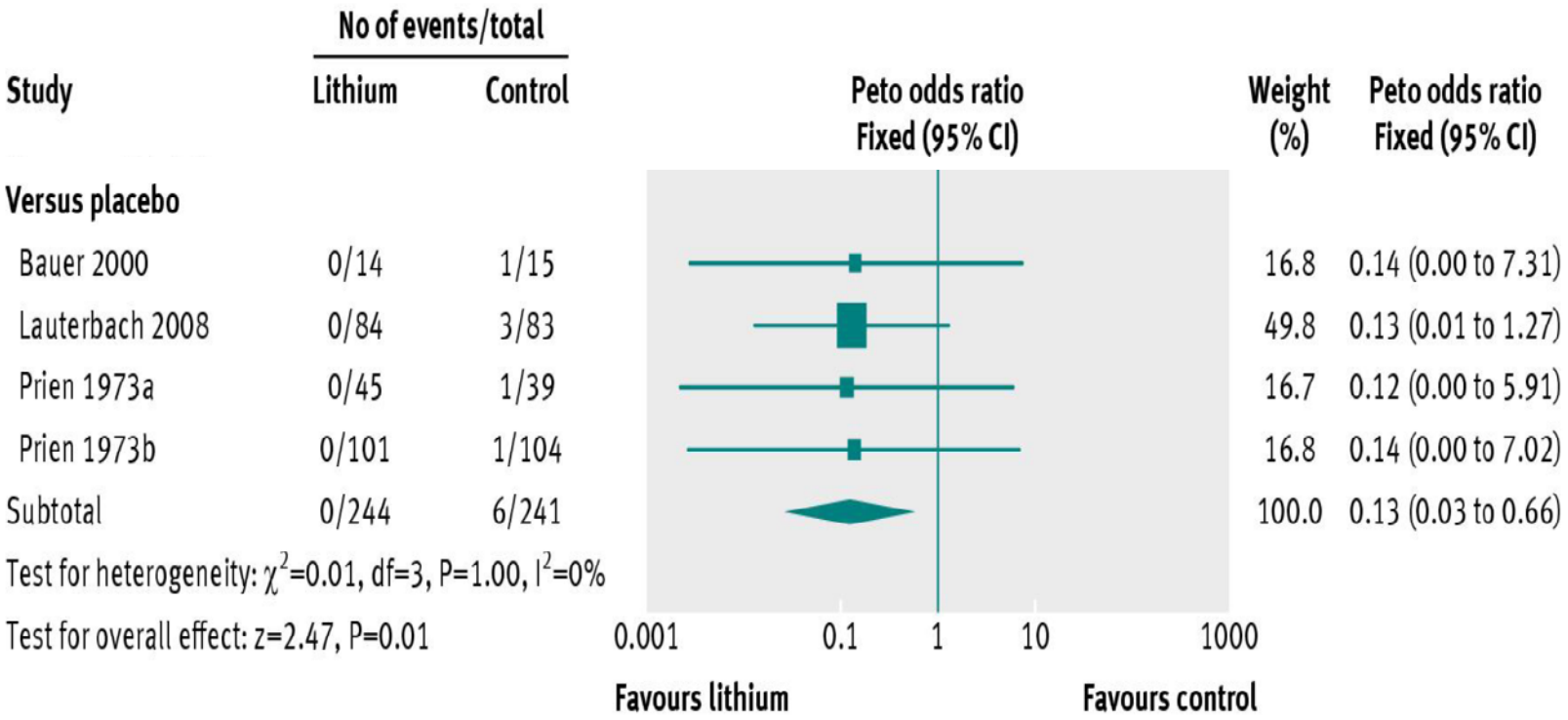
RESEARCH

Lithium in the prevention of suicide in mood disorders: updated systematic review and meta-analysis

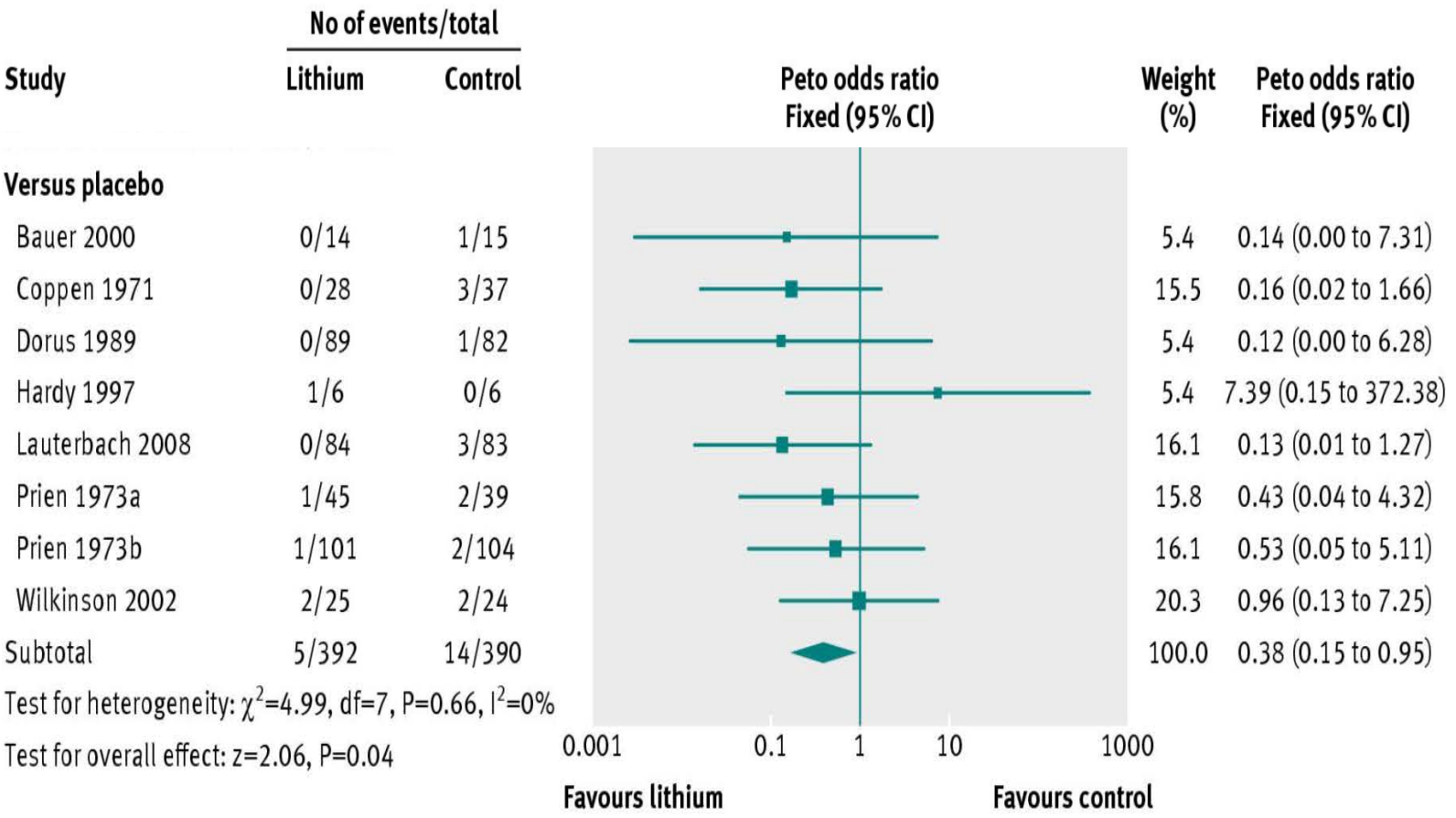

OPEN ACCESS

Andrea Cipriani *lecturer in psychiatry*[1 2], Keith Hawton *professor of psychiatry*[2], Sarah Stockton *senior information scientist*[2], John R Geddes *professor of epidemiological psychiatry*[2]

[1]Department of Public Health and Community Medicine, Section of Psychiatry, University of Verona, Verona, Italy; [2]Department of Psychiatry, University of Oxford, Warneford Hospital, Oxford OX3 7JX, UK



Lithium versus placebo: suicides



Lithium versus placebo: all deaths

Antidepressants and suicide prevention

- **Adolescents and young people up to 25 years:** Associated with ⇧ in suicidal ideation (and ?behaviour)
- **Adults:** No effect on suicidal behaviour
- **Older adults:** Associated with ⇩ suicides

Risk assessment

SELF-HARM

THE NICE GUIDELINE
ON LONGER-TERM MANAGEMENT

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MENTAL HEALTH

Services and aftercare for self-harm patients

- Services for self-harm patients in all general hospitals
- All staff should be properly trained and supervised
- All self-harm patients should receive psychosocial assessment (including of needs and risk)
- **Do not use risk assessment tools and scales to predict future suicide or repetition of self-harm**
- **Do not use risk assessment tools and scales to determine who should and should not be offered treatment or who should be discharged**

EMJ Online First, published on July 29, 2013 as 10.1136/emermed-2013-202781

The sad truth about the SADPERSONS Scale: an evaluation of its clinical utility in self-harm patients

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[1]Centre for Suicide Research, University Department of Psychiatry, Warneford Hospital, Oxford, UK
[2]Deliberate Self-Harm and Psychiatric Liaison Service, Barnes Unit, Oxford Health NHS Foundation Trust, The John Radcliffe Hospital, Oxford, UK

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Received 25 April 2013
Revised 10 June 2013
Accepted 11 June 2013

ABSTRACT

Background The SADPERSONS Scale is commonly used as a screening tool for suicide risk in those who have self-harmed. It is also used to determine psychiatric treatment needs in those presenting to emergency departments. To date, there have been relatively few studies exploring the utility of SADPERSONS in this context.

Objectives To determine whether the SADPERSONS Scale accurately predicts psychiatric hospital admission, psychiatric aftercare and repetition of self-harm at presentation to the emergency department following self-harm.

Methods SADPERSONS scores were recorded for 126 consecutive admissions to a general hospital emergency department. Clinical management outcomes following assessment were recorded, including psychiatric hospital admission, community psychiatric aftercare and repetition of self-harm in the following 6 months.

Results Psychiatric hospital admission was required in five cases (4.0%) and community psychiatric aftercare in 70 (55.5%). 31 patients (24.6%) repeated self-harm. While the specificity of the SADPERSONS scores was greater than 90% for all outcomes, sensitivity for admission was only 2.0%, for community aftercare was 5.8% and for repetition of self-harm in the following 6 months was just 6.6%.

Conclusions For the purposes of suicide prevention, a low false negative rate is essential. SADPERSONS failed to identify the majority of those either requiring psychiatric admission or community psychiatric aftercare, or to predict repetition of self-harm. The scale should not be used to screen self-harm patients presenting to general hospitals. Greater emphasis should be placed on clinical assessment which takes account of the individual and dynamic nature of risk assessment.

SADPERSONS

A scale developed in 1983 by Patterson et al in Canada for teaching medical students about assessment of suicide risk

Based on the 10 major risk factors for suicide:

- **S**ex (Male)
- **A**ge (<19 or >45)
- **D**epression
- **P**revious attempts
- **E**thanol abuse
- **R**ational thinking loss
- **S**ocial supports lacking
- **O**rganised plan
- **N**o spouse
- **S**ickness

SADPERSONS

Scoring:

1 point for each factor

0 = very low risk 10 = very high risk

0-2 – send home with follow up

3-4 – close follow up; consider hospitalisation

5-6 – strongly consider hospitalisation

7-10 – hospitalise

Outcomes

	SADPERSONS score < 7	SADPERSONS score ≥7
Referral to secondary care (N=69)	65 (94.2%)	4 (5.8%)
Psychiatric inpatient care (N=5)	4 (80%)	1 (20%)
Repetition of self-harm at 6 months (N=30)	28 (93.3%)	2 (6.7%)

Put another way……

SADPERSONS missed:

- 65/70 referrals to 2º care
- 4/5 admissions to psychiatric hospital
- 28/31 who repeated SH @6/12

Focus on risk reduction rather than just risk assessment

- Risk prediction probably only valid in short term
- Risk reduction for all patients e.g.

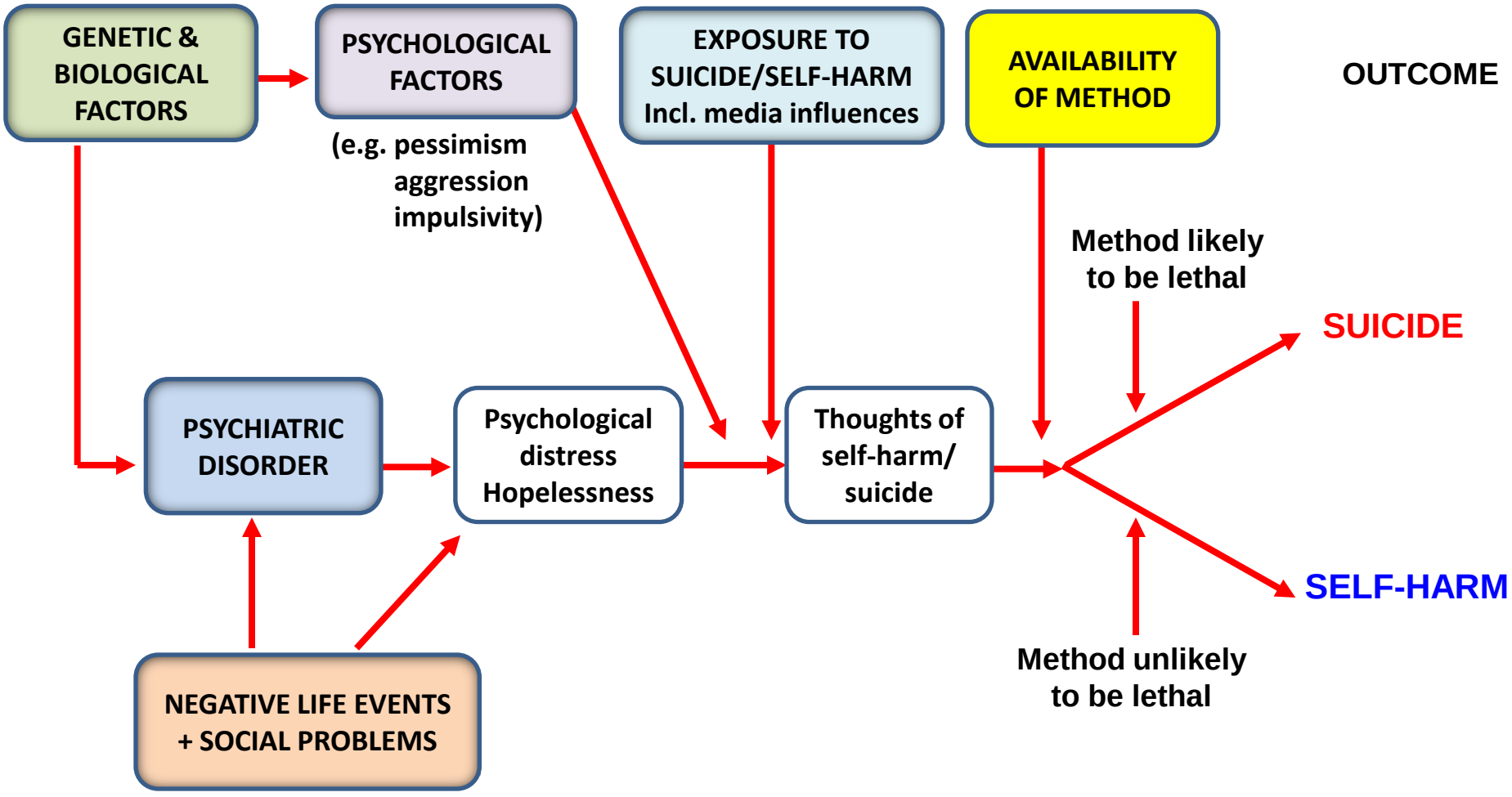
  - crisis plans

  - involvement of family members etc.

  - restriction of access to means for suicidal act

Restriction of access to suicide methods

Simplistic model of some causes of fatal and non-fatal suicidal behaviour

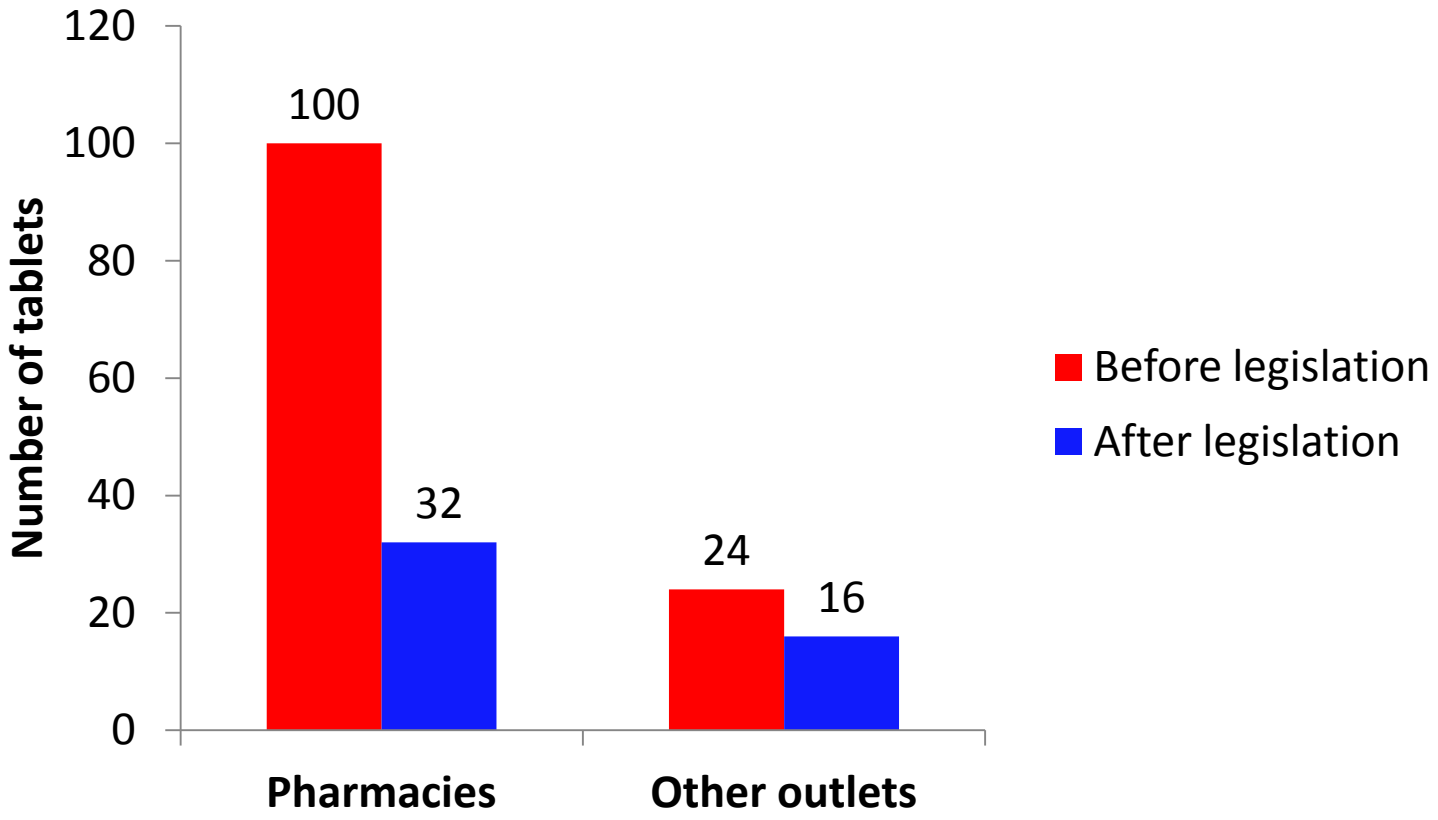


Restriction of Access to Suicide Methods
What works?

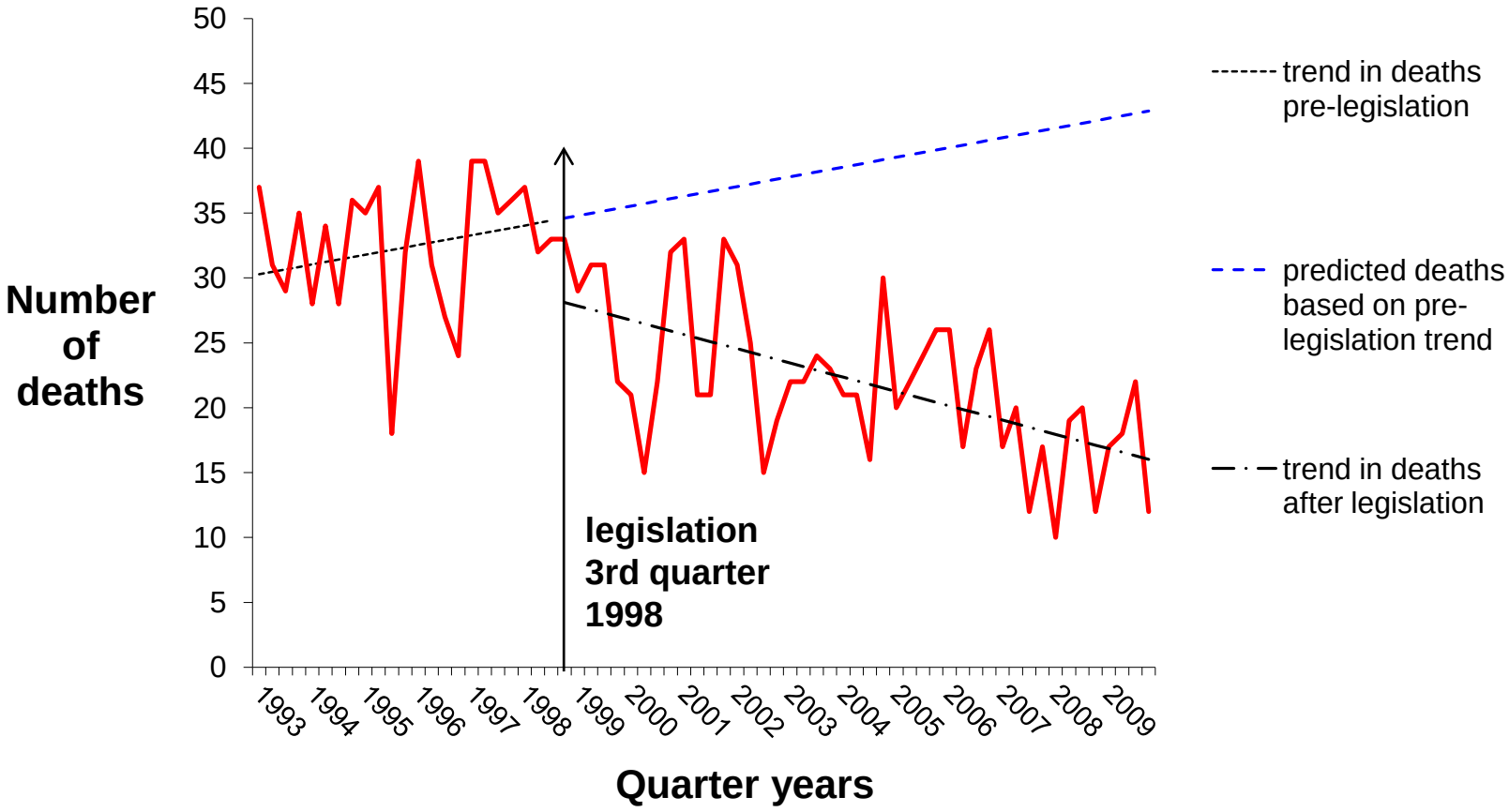
Smaller packs of paracetamol

The new UK legislation – September 16th, 1998

(paracetamol, salicylates and their compounds sold over the counter)



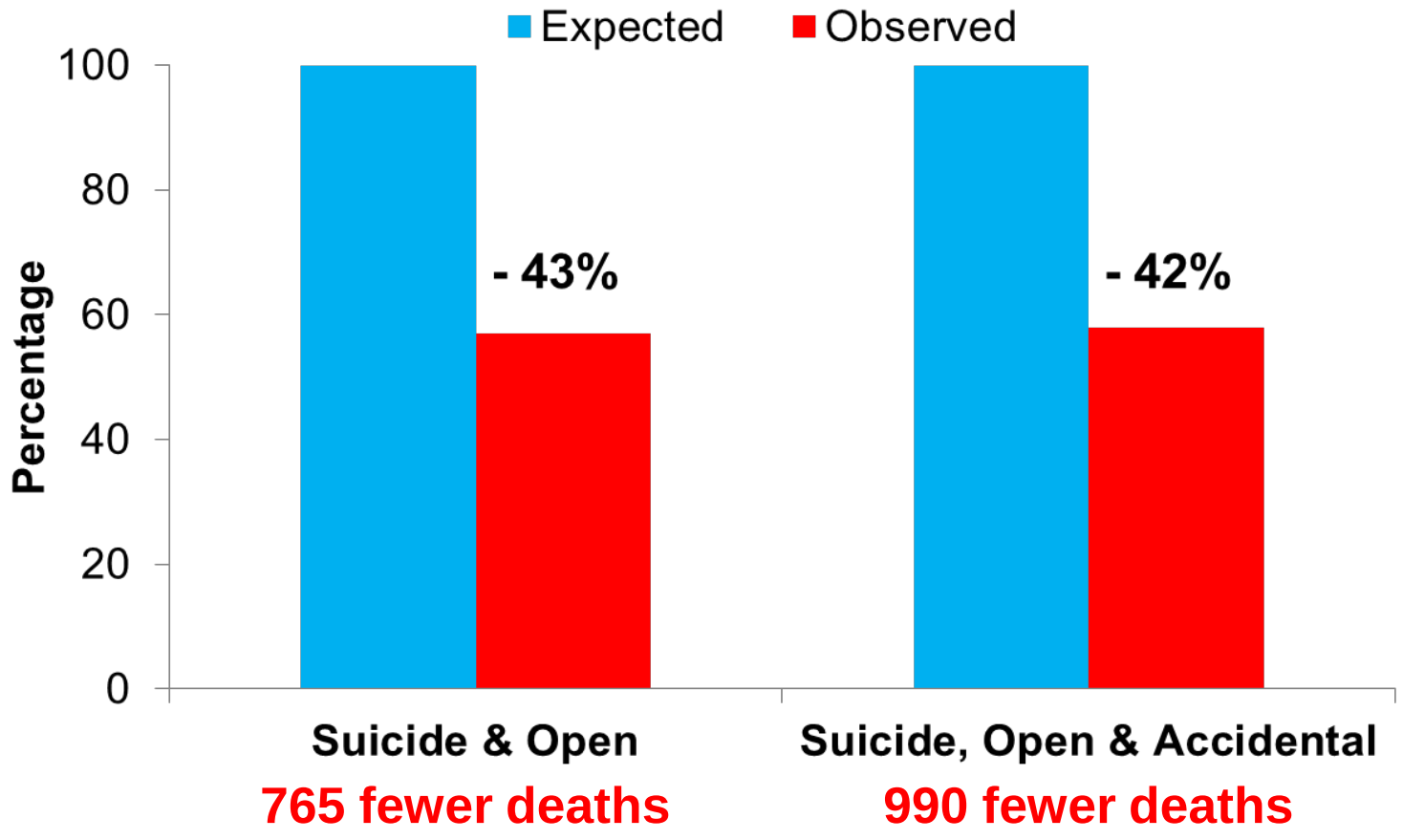
Suicide and open verdict deaths involving paracetamol in people aged 10 years and over in England and Wales



(*Hawton et al. 2013*)

Deaths involving paracetamol

October 1998-2009



Restriction of Access to Suicide Methods
What works?

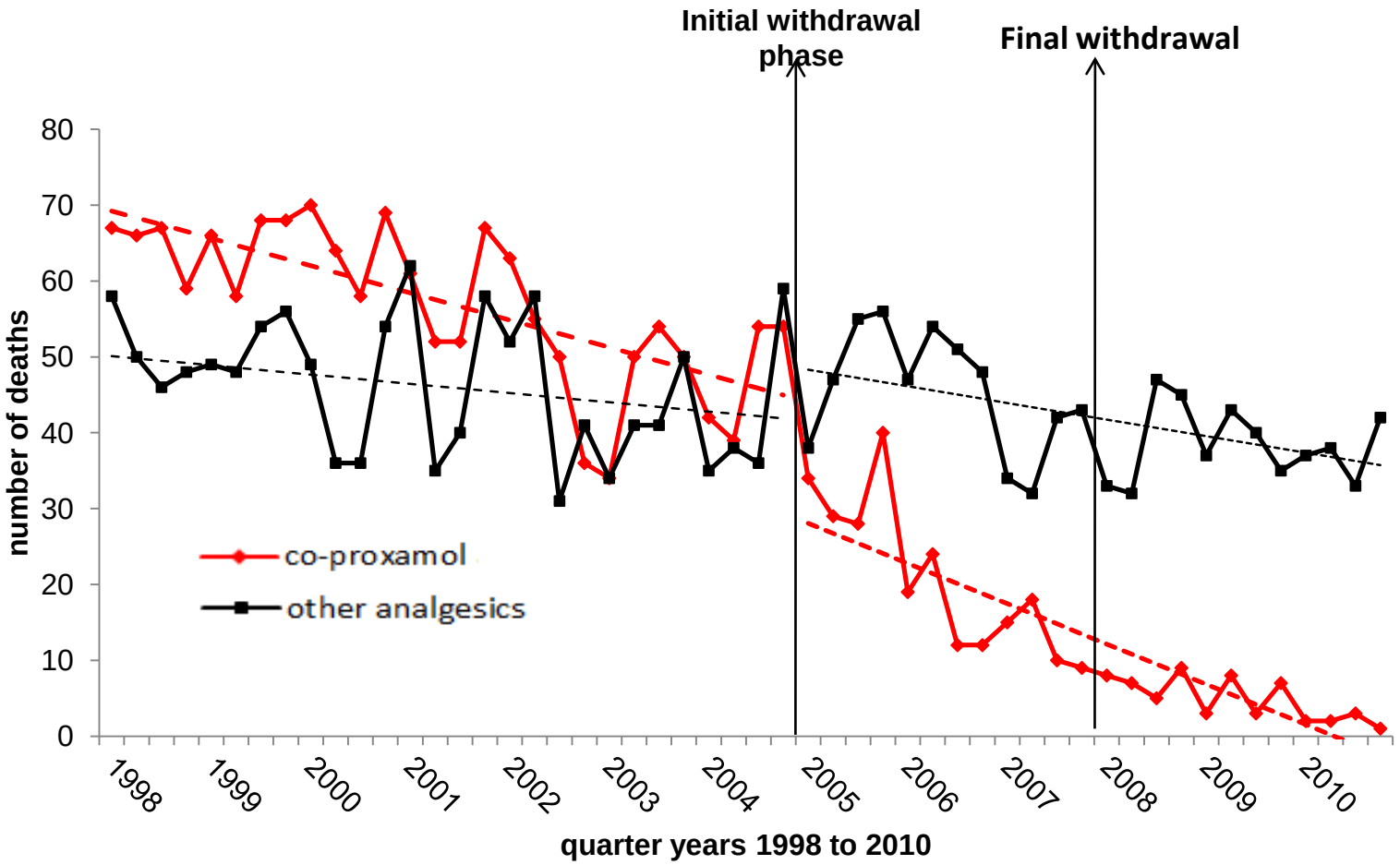
Smaller packs of paracetamol

Withdrawal of co-proxamol

Co-proxamol

- Was involved in 20% of all poisoning suicides in UK
- 5% of all suicides
- **2003–2004** Medicines and Healthcare products Regulatory Agency (MHRA) reviews efficacy and safety profile
- **2005** (January) Committee on Safety of Medicines announces withdrawal in UK
  - **2005-2007** No new patients to be prescribed co-proxamol
  - **2008** Full withdrawal

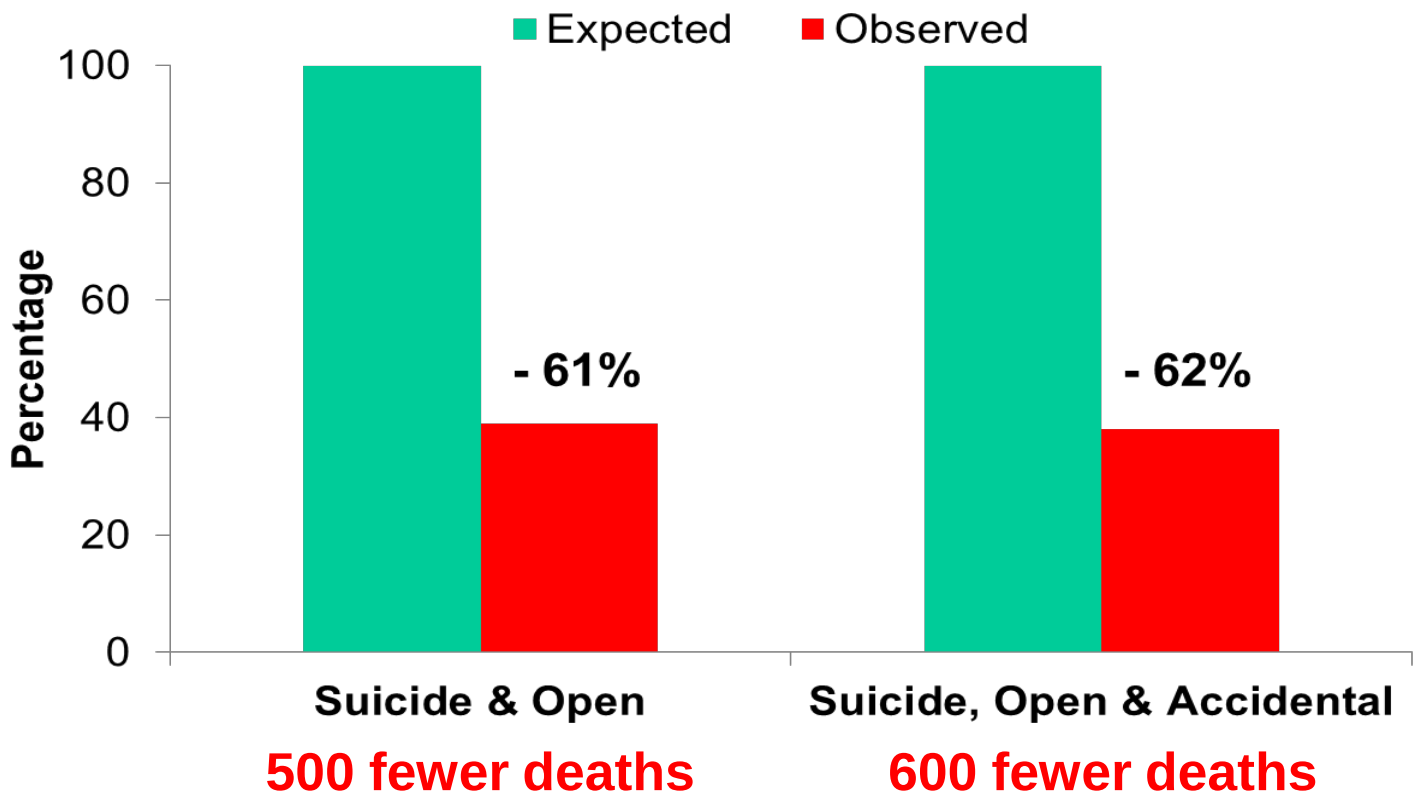
Impact of withdrawal of co-proxamol on suicide deaths involving analgesics in England and Wales 1998-2010



(*Hawton et al. 2009*)

Deaths involving co-proxamol

2005-2010



No significant change in deaths involving other analgesics

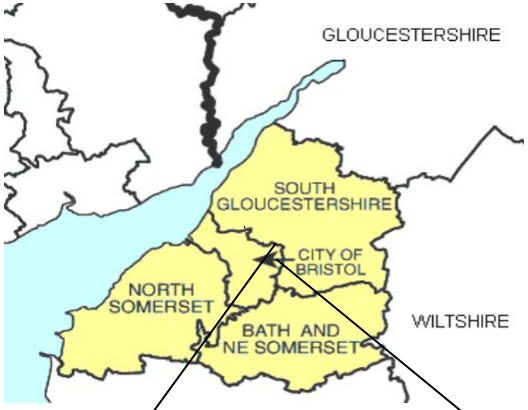
Restriction of Access to Suicide Methods
What works?

Smaller packs of paracetamol

Withdrawal of co-proxamol

Suicide barriers

The Clifton Suspension Bridge



buttresses

Barriers on the Clifton Suspension Bridge

Published by Oxford University Press on behalf of the International Epidemiological Association
 Advance Access publication 15 March 2013

International Journal of Epidemiology 2013;**42**:541–548
doi:10.1093/ije/dyt021

MENTAL HEALTH

The effectiveness of structural interventions at suicide hotspots: a meta-analysis

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Accepted 28 January 2013

Background Certain sites have gained notoriety as 'hotspots' for suicide by jumping. Structural interventions (e.g. barriers and safety nets) have been installed at some of these sites. Individual studies examining the effectiveness of these interventions have been underpowered.

Structural Interventions at Suicide Hotspots; Systematic review Pirkis et al., 2013)

- 9 studies
- 86% reduction in jumping suicides at hotspots
- 44% increase in suicides at nearby sites

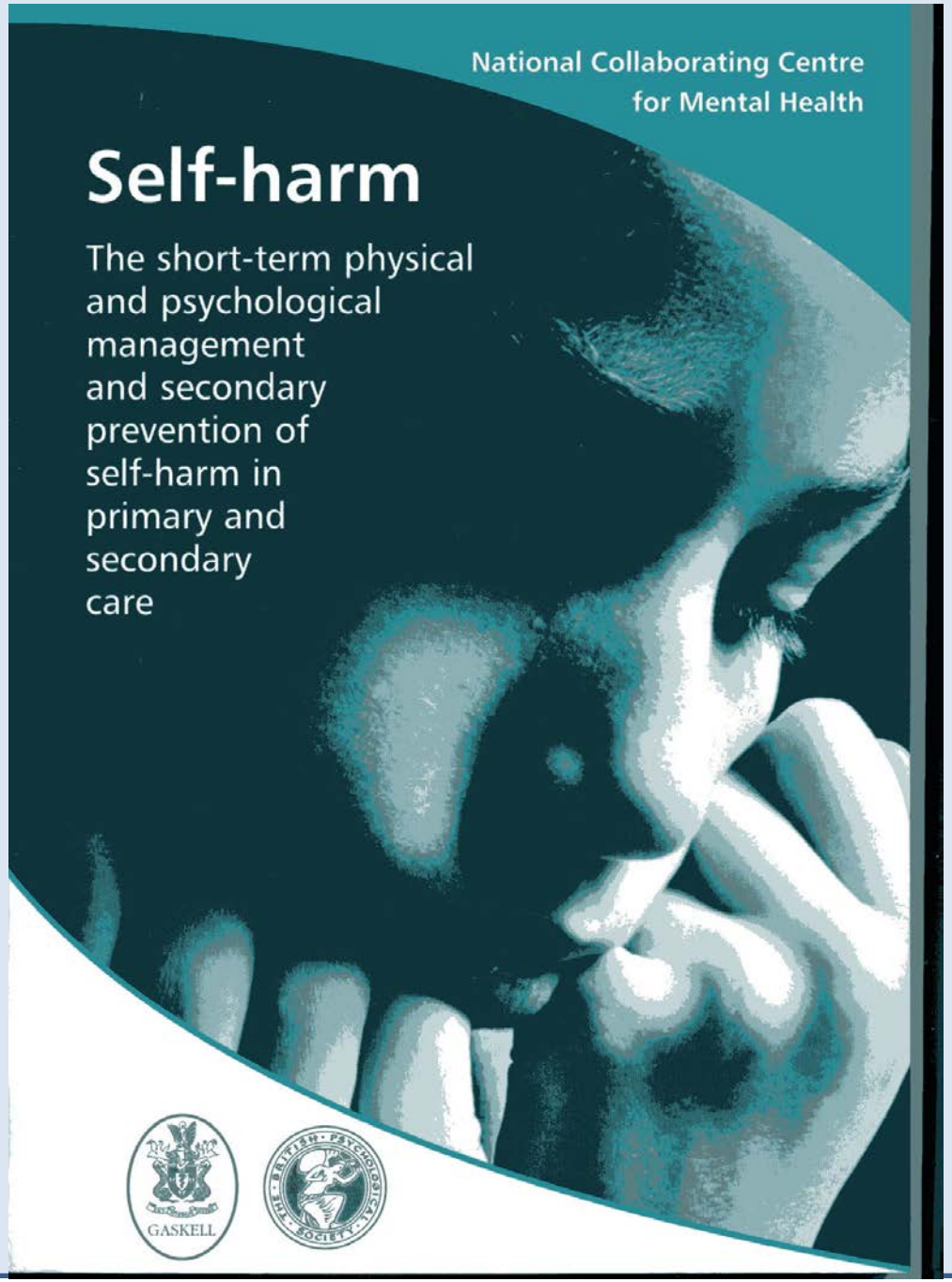
Net gain 28% reduction in all jumping sites in study cities

Self-harm patients

Repetition of self-harm and suicide in self-harm patients

- > 20% repeat within a year (return to same hospital)
- One in 25 will die by suicide in year after self-harm (>50 x general population risk)
- >50% of people dying by suicide have history of self-harm, 15% presenting to hospital for self-harm in year before death

Assessment at the hospital


National Collaborating Centre
for Mental Health
Self-harm
The short-term physical and psychological management and secondary prevention of self-harm in primary and secondary care
GASKELL
THE BRITISH PSYCHOLOGICAL SOCIETY

SELF-HARM

THE NICE GUIDELINE
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Services and aftercare for self-harm patients

- Services for self-harm patients in all general hospitals
- All staff should be properly trained and supervised
- **All self-harm patients should receive psychosocial assessment (including of needs and risk)**
- Do not use risk assessment tools and scales to predict future suicide or repetition of self-harm
- Do not use risk assessment tools and scales to determine who should and should not be offered treatment or who should be discharged

Does psychosocial assessment reduce repetition of self-harm?

Multicentre Study of Self-harm in England

(Kapur et al., PLoS One, 2013)

Hazard ratios for repetition within 1 year (all adjusted)

	Centre A	Centre B	Centre C
Psychosocial assessment	**0.99 (0.90 to 1.09)**	**0.59 (0.48 to 0.74)**	**0.59 (0.52 to 0.68)**

Care after leaving hospital

Self-harm
The efficacy of psychosocial and pharmacological interventions

Keith Hawton, Katrina Witt, Tatiana Taylor, Ella Arensman, Ellen Townsend, David Gunnell, Philip Hazel, Kees van Heeringen

(Cochrane Collaboration)

Psychological therapy

V

Treatment as usual

17 studies

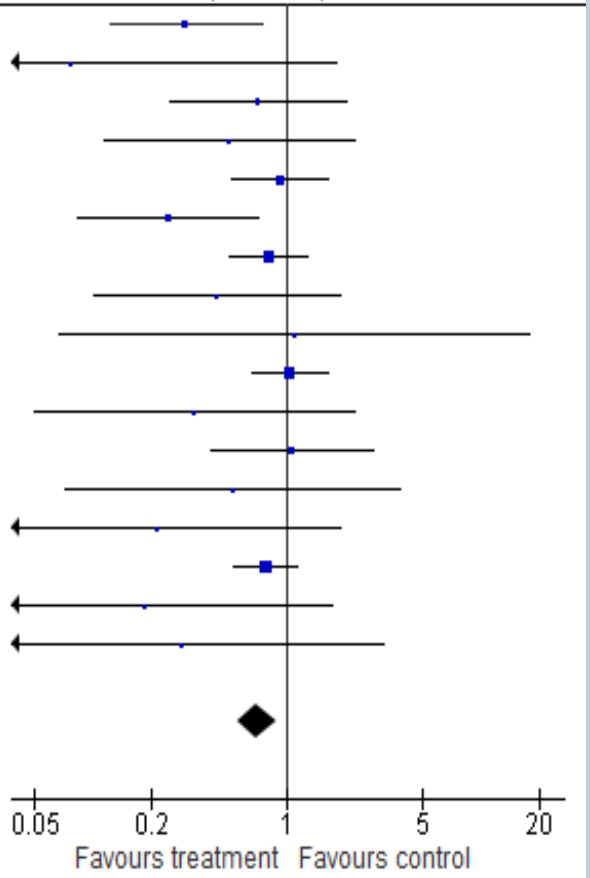
Brief Psychological Therapy vs. TAU (adults)

Repetition of SH at last follow-up

Study or Subgroup	Treatment Events	Treatment Total	Control Events	Control Total	Weight	Odds Ratio M-H, Random, 95% CI
Brown 2005	13	45	23	40	5.9%	0.30 [0.12, 0.74]
Davidson 2014	4	10	4	4	0.5%	0.08 [0.00, 1.81]
Dubois 1999	8	43	10	41	4.5%	0.71 [0.25, 2.02]
Evans 1999b	10	18	10	14	2.4%	0.50 [0.11, 2.21]
Gibbons 1978	27	200	29	200	12.6%	0.92 [0.52, 1.62]
Guthrie 2001	5	58	17	61	4.3%	0.24 [0.08, 0.71]
Hatcher 2011	36	253	51	299	16.6%	0.81 [0.51, 1.28]
Hawton 1987	3	41	6	39	2.4%	0.43 [0.10, 1.87]
Husain 2014	1	102	1	111	0.7%	1.09 [0.07, 17.64]
McAuliffe 2014	54	222	50	211	17.7%	1.03 [0.67, 1.61]
Salkovskis 1990	3	12	4	8	1.5%	0.33 [0.05, 2.24]
Slee 2008	26	40	21	33	5.3%	1.06 [0.41, 2.78]
Stewart 2009	3	23	2	9	1.4%	0.53 [0.07, 3.82]
Tapolaa 2010	2	9	4	7	1.1%	0.21 [0.02, 1.88]
Tyrer 2003	84	213	99	217	21.0%	0.78 [0.53, 1.14]
Wei 2013	1	25	5	27	1.1%	0.18 [0.02, 1.69]
Weinberg 2006	12	15	14	15	0.9%	0.29 [0.03, 3.12]
Total (95% CI)		**1329**		**1336**	**100.0%**	**0.70 [0.55, 0.88]**
Total events	292		350			

Heterogeneity: Tau² = 0.03; Chi² = 18.50, df = 16 (P = 0.30); I² = 14%

Test for overall effect: Z = 3.02 (P = 0.003)



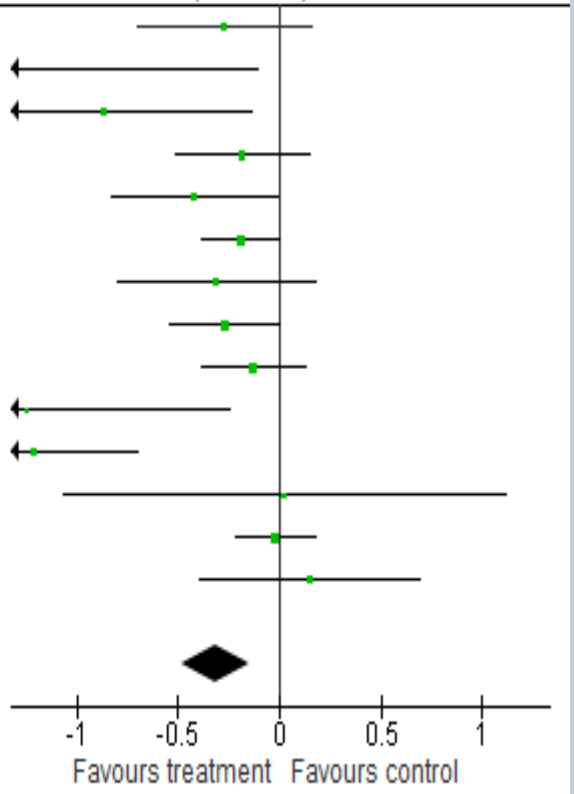
Brief Psychological Therapy vs. TAU (adults)

Depression scores at last follow-up

	Treatment			Control				Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI
Brown 2005	14.51	12.9	45	18.18	13.75	40	7.6%	-0.27 [-0.70, 0.15]
Davidson 2014	9.27	5.73	11	16.75	1.5	4	1.6%	-1.39 [-2.67, -0.10]
Evans 1999b	5.7	5.5	18	10.1	4.1	14	3.9%	-0.87 [-1.60, -0.13]
Gibbons 1978	10.57	11.39	69	12.62	10.95	71	9.4%	-0.18 [-0.51, 0.15]
Guthrie 2001	18.5	13.5	47	24	12.5	48	8.0%	-0.42 [-0.83, -0.01]
Hatcher 2011	5.3	4.7	190	6.2	4.8	232	12.3%	-0.19 [-0.38, 0.00]
Hawton 1987	6.5	8.26	30	9.6	10.96	35	6.6%	-0.31 [-0.80, 0.18]
Husain 2014	14.8	17.3	102	19.4	16.9	111	10.7%	-0.27 [-0.54, 0.00]
McAuliffe 2014	17.3	15.9	128	19.4	17	106	11.0%	-0.13 [-0.39, 0.13]
Salkovskis 1990	15	6.16	12	23	6.16	8	2.4%	-1.24 [-2.24, -0.25]
Slee 2008	11.58	12.12	40	29.61	17.51	33	6.4%	-1.21 [-1.71, -0.70]
Tapolaa 2010	25	13.57	6	24.71	11.87	7	2.1%	0.02 [-1.07, 1.11]
Tyrer 2003	7	5.3	198	7.1	5.2	202	12.3%	-0.02 [-0.22, 0.18]
Wei 2013	7.26	10.58	25	5.84	8.23	27	5.8%	0.15 [-0.40, 0.69]
Total (95% CI)			**921**			**938**	**100.0%**	**-0.31 [-0.48, -0.14]**

Heterogeneity: Tau² = 0.05; Chi² = 32.89, df = 13 (P = 0.002); I² = 60%

Test for overall effect: Z = 3.63 (P = 0.0003)



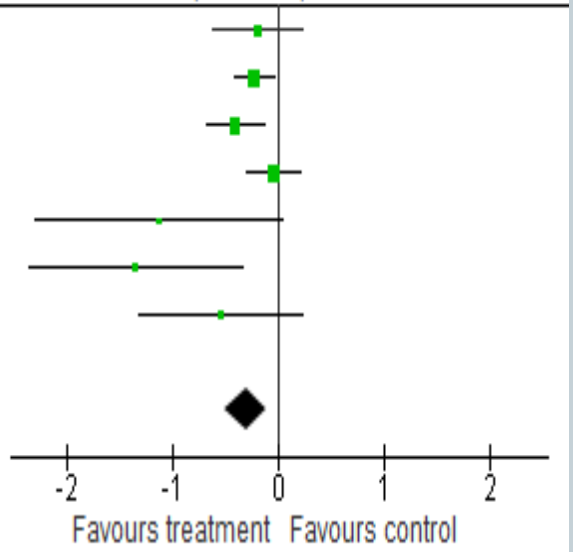
Brief Psychological Therapy vs. TAU (adults)

Hopelessness scores at last follow-up

	Treatment			Control				Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI
Brown 2005	6.07	5.28	45	7.24	6.35	40	14.1%	-0.20 [-0.63, 0.23]
Hatcher 2011	5.8	5.8	189	7.2	6.4	229	27.9%	-0.23 [-0.42, -0.03]
Husain 2014	7.5	8.8	102	11.2	9.1	111	22.4%	-0.41 [-0.68, -0.14]
McAuliffe 2014	6.8	6.3	128	7.1	6.1	106	23.4%	-0.05 [-0.31, 0.21]
Patsiokas 1985	3.3	2.34	10	9	7.8	5	2.8%	-1.13 [-2.30, 0.04]
Salkovskis 1990	6.75	2.3	12	10	2.3	8	3.7%	-1.35 [-2.36, -0.34]
Stewart 2009	4.35	4.22	23	7.56	8.53	9	5.7%	-0.55 [-1.33, 0.23]
Total (95% CI)			**509**			**508**	**100.0%**	**-0.31 [-0.51, -0.10]**

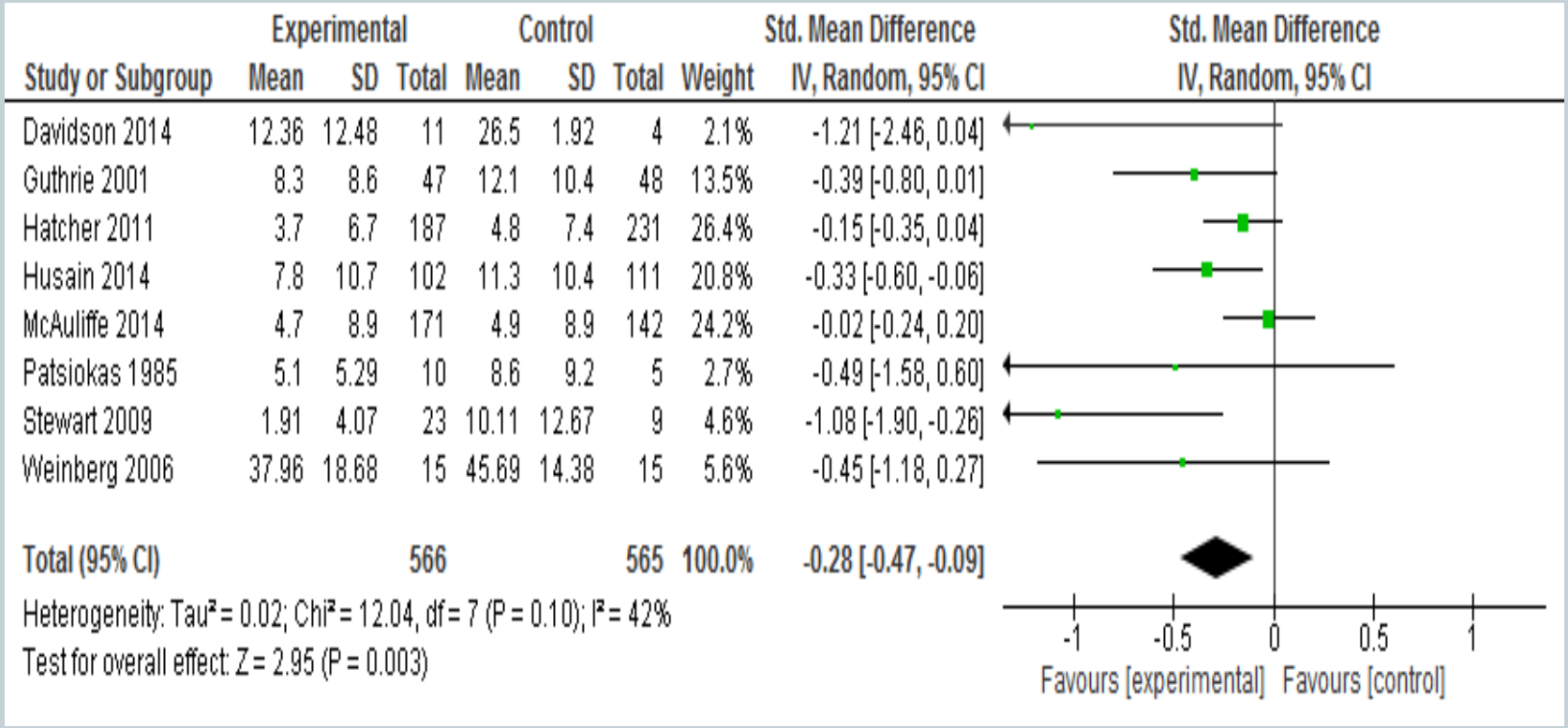
Heterogeneity: $Tau^2 = 0.03$; $Chi^2 = 11.13$, df = 6 (P = 0.08); $I^2 = 46\%$

Test for overall effect: Z = 2.96 (P = 0.003)



Brief Psychological Therapy vs. TAU (adults)

Suicidal ideation scores at last follow-up



Study or Subgroup	Experimental Mean	Experimental SD	Experimental Total	Control Mean	Control SD	Control Total	Weight	Std. Mean Difference IV, Random, 95% CI
Davidson 2014	12.36	12.48	11	26.5	1.92	4	2.1%	-1.21 [-2.46, 0.04]
Guthrie 2001	8.3	8.6	47	12.1	10.4	48	13.5%	-0.39 [-0.80, 0.01]
Hatcher 2011	3.7	6.7	187	4.8	7.4	231	26.4%	-0.15 [-0.35, 0.04]
Husain 2014	7.8	10.7	102	11.3	10.4	111	20.8%	-0.33 [-0.60, -0.06]
McAuliffe 2014	4.7	8.9	171	4.9	8.9	142	24.2%	-0.02 [-0.24, 0.20]
Patsiokas 1985	5.1	5.29	10	8.6	9.2	5	2.7%	-0.49 [-1.58, 0.60]
Stewart 2009	1.91	4.07	23	10.11	12.67	9	4.6%	-1.08 [-1.90, -0.26]
Weinberg 2006	37.96	18.68	15	45.69	14.38	15	5.6%	-0.45 [-1.18, 0.27]
Total (95% CI)			**566**			**565**	**100.0%**	**-0.28 [-0.47, -0.09]**

Heterogeneity: Tau² = 0.02; Chi² = 12.04, df = 7 (P = 0.10); I² = 42%

Test for overall effect: Z = 2.95 (P = 0.003)

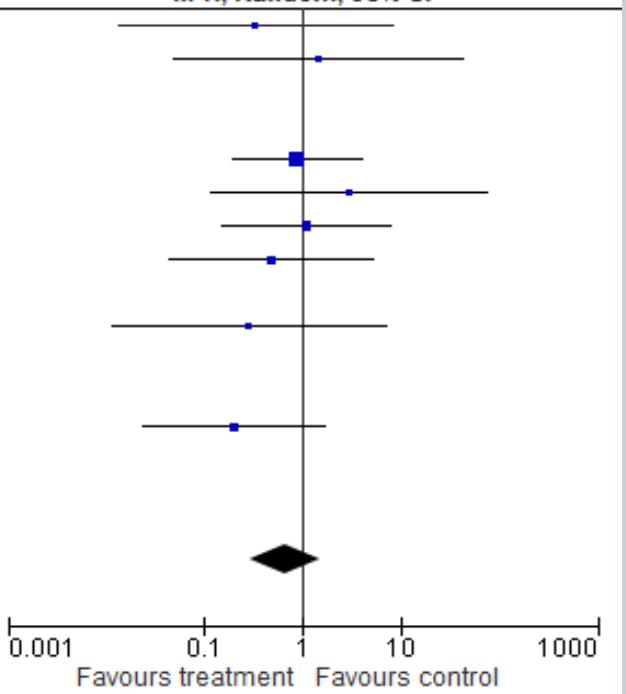
Brief Psychological Therapy vs. TAU (adults)

Suicide at last follow-up

Study or Subgroup	Treatment Events	Treatment Total	Control Events	Control Total	Weight	Odds Ratio M-H, Random, 95% CI
Brown 2005	0	60	1	60	6.6%	0.33 [0.01, 8.21]
Davidson 2014	1	10	0	4	6.0%	1.42 [0.05, 42.22]
Dubois 1999	0	51	0	51		Not estimable
Guthrie 2001	0	58	0	61		Not estimable
Hatcher 2011	3	253	4	299	30.2%	0.89 [0.20, 3.99]
Hawton 1987	1	41	0	39	6.6%	2.93 [0.12, 74.00]
Husain 2014	2	102	2	111	17.5%	1.09 [0.15, 7.88]
McAuliffe 2014	1	222	2	211	11.8%	0.47 [0.04, 5.25]
Salkovskis 1990	0	12	0	8		Not estimable
Slee 2008	0	48	1	42	6.6%	0.29 [0.01, 7.19]
Stewart 2009	0	23	0	9		Not estimable
Tapolaa 2010	0	9	0	7		Not estimable
Tyrer 2003	1	239	5	241	14.8%	0.20 [0.02, 1.71]
Wei 2013	0	26	0	27		Not estimable
Weinberg 2006	0	15	0	15		Not estimable
Total (95% CI)		**1169**		**1185**	**100.0%**	**0.66 [0.29, 1.51]**
Total events	9		15			

Heterogeneity: Tau² = 0.00; Chi² = 3.13, df = 7 (P = 0.87); I² = 0%

Test for overall effect: Z = 0.98 (P = 0.33)



Services and aftercare for self-harm patients

- Services for self-harm patients in all general hospitals
- All staff should be properly trained and supervised
- All self-harm patients should receive psychosocial assessment (including of needs and risk)
- Do not use risk assessment tools and scales to predict future suicide or repetition of self-harm
- Do not use risk assessment tools and scales to determine who should and should not be offered treatment or who should be discharged
- **Psychological therapy can be effective in reducing risk of repetition of self-harm**

Suicide Prevention and Postvention
Special Interest Day
Tuesday 26th May 2015, Royal College of Psychiatrists, London

What works and what may not work

Keith Hawton

UNIVERSITY OF OXFORD
CENTRE FOR SUICIDE RESEARCH