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Treating Injecting Drug Users for Hepatitis C: Myths and Reality

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Outline of today's presentation

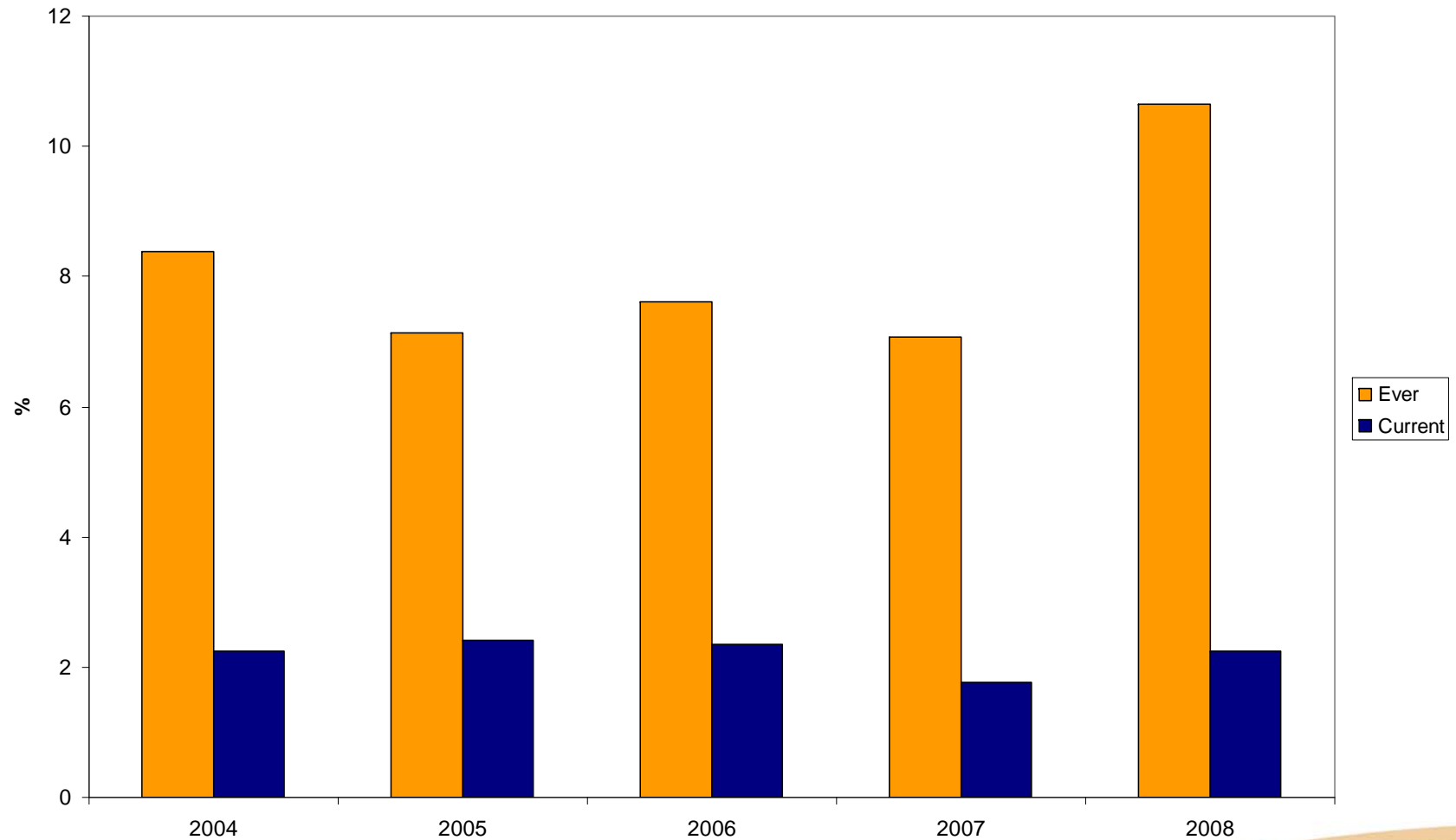
- Background
- Literature review
- Myths and Reality of hepatitis C treatment for IDU
 - Illicit drug use
 - Alcohol abuse
 - Mental illness

Hepatitis C and injecting drug users

- 180 million people worldwide exposed to hepatitis C
- By 2006, \approx 260,000 Australians had been exposed and \approx 200,000 had chronic infection
- There are \approx 6000-9000 new infections / year in Australia
- Considerable burden of disease
 - 50-76% of the world's liver cancers
 - Two thirds of the world's liver transplants
- Almost 90% of new HCV infections globally attributable to injecting drug use

Sources: WHO 1999, Hepatitis C Virus Projections Working Group 2006

Hepatitis C treatment rate amongst participants in the national NSP survey, 2004-2008



Source: NCHECR 2009

HCV treatment outcomes in IDU

		Number	Percentage
Total		22	100
Study population	IDU and non-IDU	10	45.5
	Current IDU only	2	9.1
	Former IDU only	3	13.6
IDU status	Drug Treatment only	10	45.5
	Mixed	7	31.8
	IFN	1	4.5
	INF/RBV	5	22.7
	PEG/RBV	9	40.9
	Mixed	7	31.8
Median number IDU initiating treatment (range)		50 (12-447)	-
Median difference in percent non-IDU achieving SVR compared to percent-IDU achieving SVR (range)		-	-0.5 (-10.7, 14.3)

Source: Hellard et al. Clin Infect Dis; 49: 561-573, 2009

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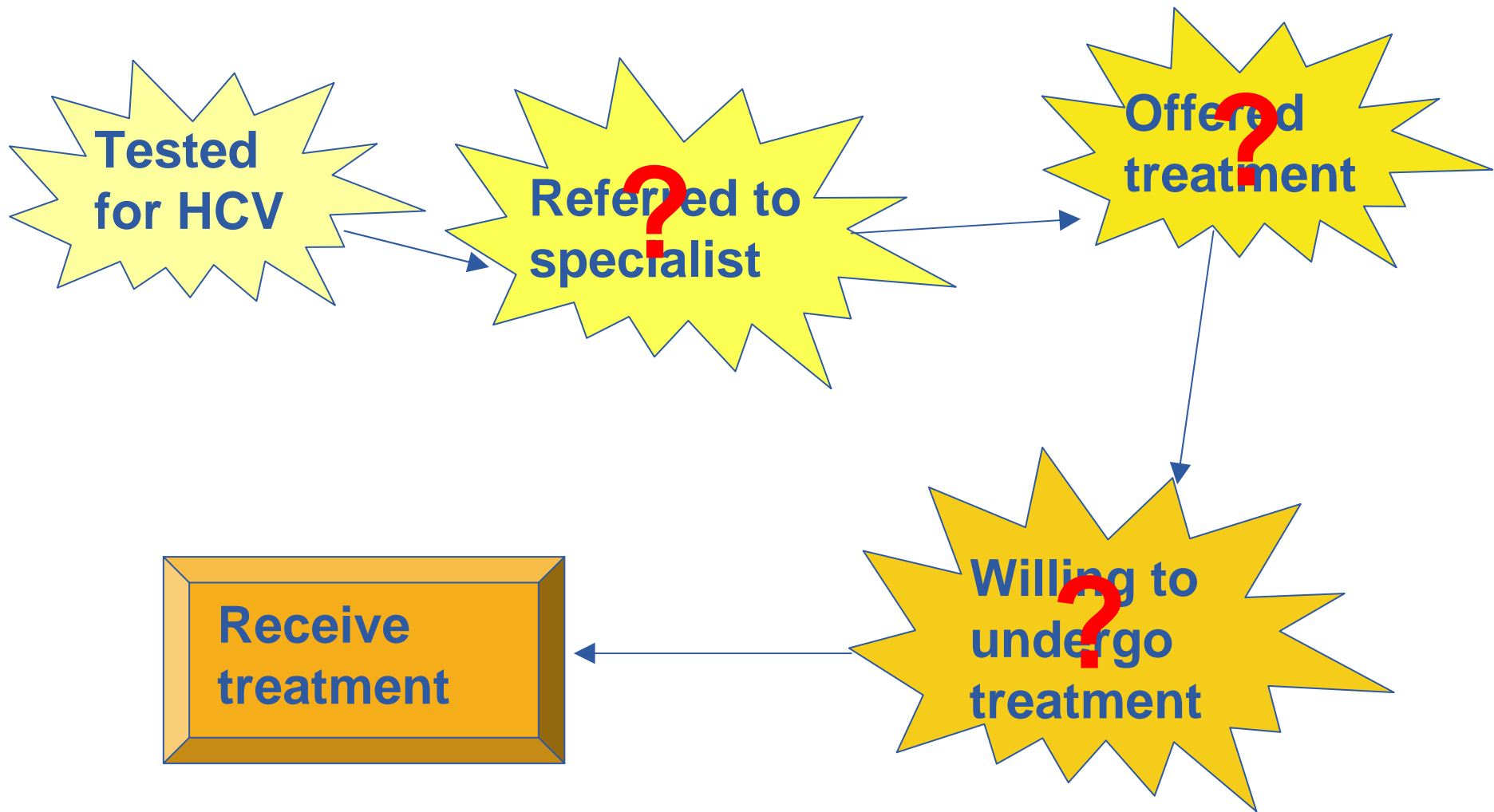
Aim

- To investigate the low rates of hepatitis C treatment amongst IDU

Methods

- Literature review
- Searches conducted using PubMed and Web of Science in 2007-2008
- Keywords: injecting drug use, injection drug use, intravenous drug use, illicit drug use, substance abuse, hepatitis C treatment, interferon
- Limited to English language papers





Barriers to treatment

Individual	Provider	Structural
Not aware treatment is available	No referral	Patient-clinician trust
HIV co-infection		Discrimination
Lack of stability		Cost
Unwillingness		Access to clinics

Mental health

Alcohol use

Illicit drug use (including risk of reinfection)

MYTH:

Heavy alcohol use amongst IDU, means that IDU are unlikely to successfully complete treatment.

Reality

- IDU more likely to have a history of heavy alcohol use
- History of alcohol abuse - > less likely to be enrolled in treatment
- If enrolled, history of alcohol abuse - > no evidence of effect on SVR rates
- Regular drinking in the year prior to treatment - > less likely to complete the full course of treatment, and therefore less likely to attain a SVR
- Alcohol use during hepatitis C therapy may have negative impact on treatment outcomes

MYTH:

High levels of depression and other mental illness amongst IDU, means that IDU are unlikely to be able to successfully complete treatment.

Reality – interferon related depression

- Depression common side-effect of interferon
- It is common reason for early cessation of treatment
- No reduction in SVR rate amongst those with interferon related depression who complete treatment

Key sources: Schafer, Scheurlen et al. 2007; McHutchison, Gordon et al. 1998.



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Reality – having a history of mental illness

- IDU are more likely to have a history of mental illness than other patients
- Patients with a treated stable psychiatric disorder receiving psychiatric management in tandem with their antiviral treatment
 - achieved similar results to other patients,
 - including similar levels of depression during treatment
 - regardless of medication at baseline

Key sources: Shaefer, Schmidt et al. 2003; Shaefer, Hinzpeter et al. 2007;
Alvarez-Uria, Day et al. 2008



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MYTH:

IDU should abstain from injecting for a prolonged period or concurrently enrol in a drug treatment program before being admitted to hepatitis C treatment.

Reality: pre-treatment abstinence

- Common eligibility criterion
- Few trials (2 to date) have attempted to evaluate the effect of enforcing a period of pre-treatment abstinence
- Neither found any statistically significant result

Key source: Hellard, Sacks-Davis, Gold 2009

Reality: illicit drug use during treatment

- No evidence that occasional injecting during treatment has an effect on chances of treatment success
- Regular injecting drug use (daily or every second day):
 - One study found that this made people less likely to complete the regimen
 - No difference has been observed in SVR rates
 - Numbers are small
- In a recent study active users were less likely to attain SVR than former users. However 'active' was not defined
- Low observed reinfection rates after treatment (0-2.5/100 person-years cf 31-47/100 person-years after spontaneous clearance)

Key sources: Hellard, Sacks-Davis, Gold 2009; Alvarez-Uria, Day et al 2008

Reality: concurrent enrollment in drug treatment programs

- A number of successful concurrent programs
- No evidence to date that concurrent enrollment in drug treatment increases an IDUs' likelihood of attaining SVR
- Mounting evidence that early treatment on hepatitis C increases the likelihood of SVR attainment -> need to re-assess these requirements

Key source: Hellard, Sacks-Davis, Gold 2009

Summary

- IDU can be treated successfully for hepatitis C
- However treatment uptake is currently low
- IDU should not be automatically excluded from treatment because of assumptions regarding mental health or alcohol use
- People with stable mental illness can achieve successful treatment results if they have concurrent psychiatric care
- People with a history of alcohol use can achieve similar results to other patients, though they should be cautioned not to drink during treatment



Summary continued

- Current policies requiring concurrent drug treatment and/or pre-treatment abstinence are not evidence-based
- More research is required to determine the optimal conditions for successful hepatitis C antiviral treatment in IDU

