

Cost-effectiveness of reaching the WHO HCV elimination targets for MSM in UK -
90% decrease in HCV incidence by 2030.

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Disclosures

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Background/aims

- WHO elimination target – reduce HCV incidence by 90% by 2030 [1]
- Most HCV transmission in MSM is amongst HIV+ MSM
- However, transmission exists in HIV- MSM, especially among MSM on HIV PrEP:
 - Due to PrEP being targeted to high-risk MSM
 - PrEP preventing high-risk MSM from getting HIV [2]
 - Possibly risk compensation due to PrEP [3]
- Routine PrEP and HIV care appointments provide:
 - Low-cost HCV screening opportunity every 3-6 months.
- **AIM:** Model most cost-effective strategy to achieving WHO HCV elimination target among **all MSM** (not just HIV-diagnosed MSM).

[1] World Health Organisation (WHO). *Combating hepatitis B and C to reach elimination by 2030*. 2016.

[2] McCormack S, Dunn DT, Desai M, et al. *Lancet* 2016; 387:53-60.5.

[3] Hoff C, Chakravarty D, Bircher A, et al *AIDS Patient Care and STDS*. 2015; 29(7):408-417.

Methods

- Co-infection model of HIV and HCV transmission, progression and treatment
- Assume PrEP coverage - 12.5% of HIV-negative MSM between 2018-2020
- Screening scenarios modelled

Screening scenario	HIV-diagnosed	PrEP users	Other MSM
Current	12 months	NA	10-20 years
Intervention	6 months	3, 6 or 12 months	10-20 years

- **Quicker linkage to treatment - 6 months** instead of 32 months
- Estimated costs - HCV Ab test (£10), RNA test (£46), HCV treatment (£15,000),
 - No added infrastructure costs because use existing visits
- **Which PrEP screening strategy is most cost-effective** for achieving elimination target - cost per quality adjusted life year (QALY)

Results – 2018 to 2030

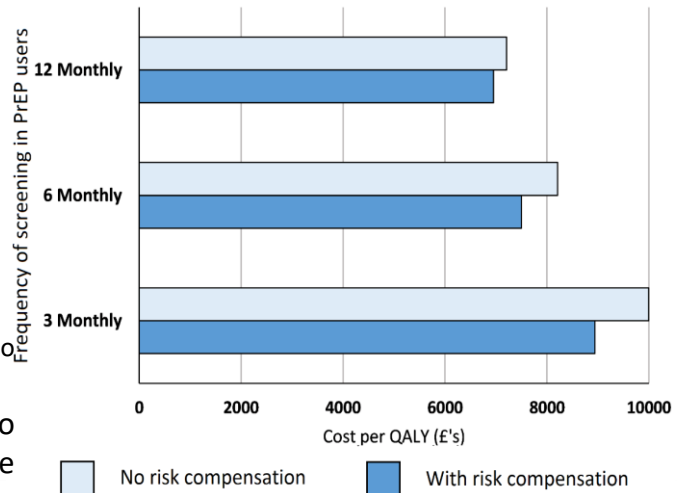
With no risk compensation,

PrEP screening frequency	Decrease in incidence	Cost (£) per QALY
12 monthly	91.2%	7,200
6 monthly	92.4%	8,210
3 monthly	93.1%	9,990

With risk compensation, either

- Reduced condom use in PrEP users
- PrEP users have no preference who they mix with.

➤ Reduces impact on HCV incidence to 84-90%, but becomes more cost-effective by 10%.



Conclusions/implications

- WHO HCV elimination target can be met in MSM in the UK, requiring
 - Enhanced HCV screening in PrEP users and HIV-diagnosed MSM
 - and rapid linkage to treatment.
 - <£10,000 per QALY so is a cost-effective intervention.
- Risk compensation reduces impact of intervention,
 - but improves cost-effectiveness of enhanced screening in PrEP users.

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