

NITCAR HCV Audit

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NITCAR

National Infection Trainee Collaborative
for Audit and Research

Introduction

- 160,000 Chronic HCV infections in England
- 15 million people globally
- 20% clear virus without treatment but 80% chronically infected
- In England ~1,700 new cases per year of HCV-related end-stage liver disease and hepatocellular carcinoma
- Rapid expansion in the number of classes of antiviral drugs available for the treatment of hepatitis C virus (HCV).
- Possibility of cure in many viraemic patients unable to tolerate older regimens.



Introduction

- Sustained virological response (SVR) is the aim of treatment
- Possibility of cure in many viraemic patients unable to tolerate older regimens.
- WHO goal to eliminate HCV as a major public health threat by 2030.
- PHE: All people at risk of HCV should have access to testing.

AIM

To ascertain how many patients with a new serological diagnosis of HCV received PCR testing to detect viraemia



NITCAR HCV Audit – Standards

Two auditable standards for follow-up HCV testing:

1. In 100% of cases, a first positive (or indeterminate) HCV serology should be followed up with repeated serology testing on a second specimen for confirmation within 12 months.
2. In 100% of cases, a first positive (or indeterminate) HCV serology should be followed up with PCR testing to detect viraemia within 12 months.



Methods

- Retrospective, multi-site, observational audit in the UK via NITCAR.
- Audit period: 1st November 2011 – 31st October 2014
- Auditable standard: 100% of patients should have HCV PCR testing within 12 months of their first positive HCV serology.
- Specimen results collected locally and assigned anonymised study location code. Due to anonymisation, patients potentially tested at multiple study sites could not be reconciled.
- Statistical analysis and cost implications.

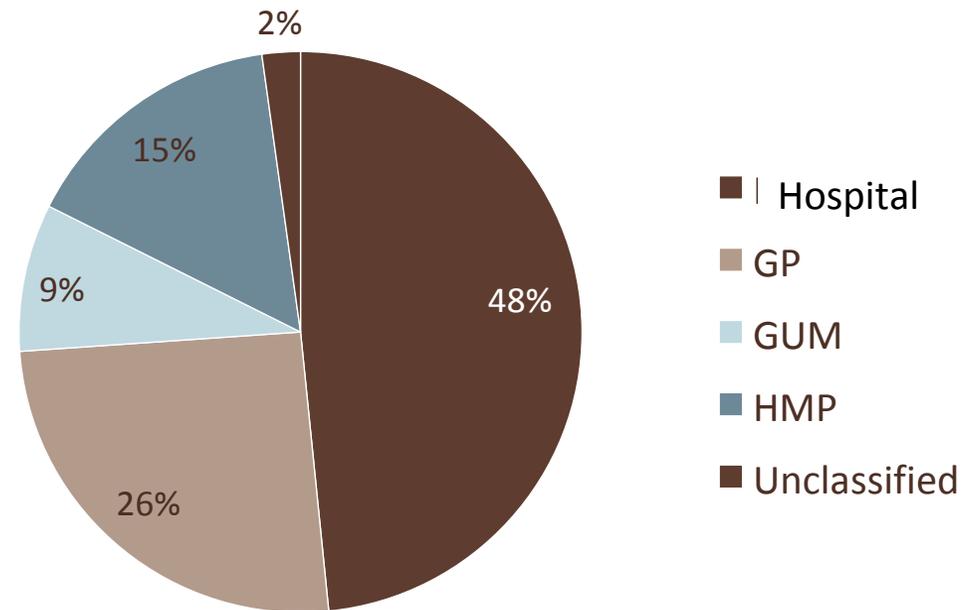


Results – first positive serology

- Six participating centres

(Preston, Coventry & Warwickshire, Manchester, Shrewsbury & Telford, Leicester, Cambridge)

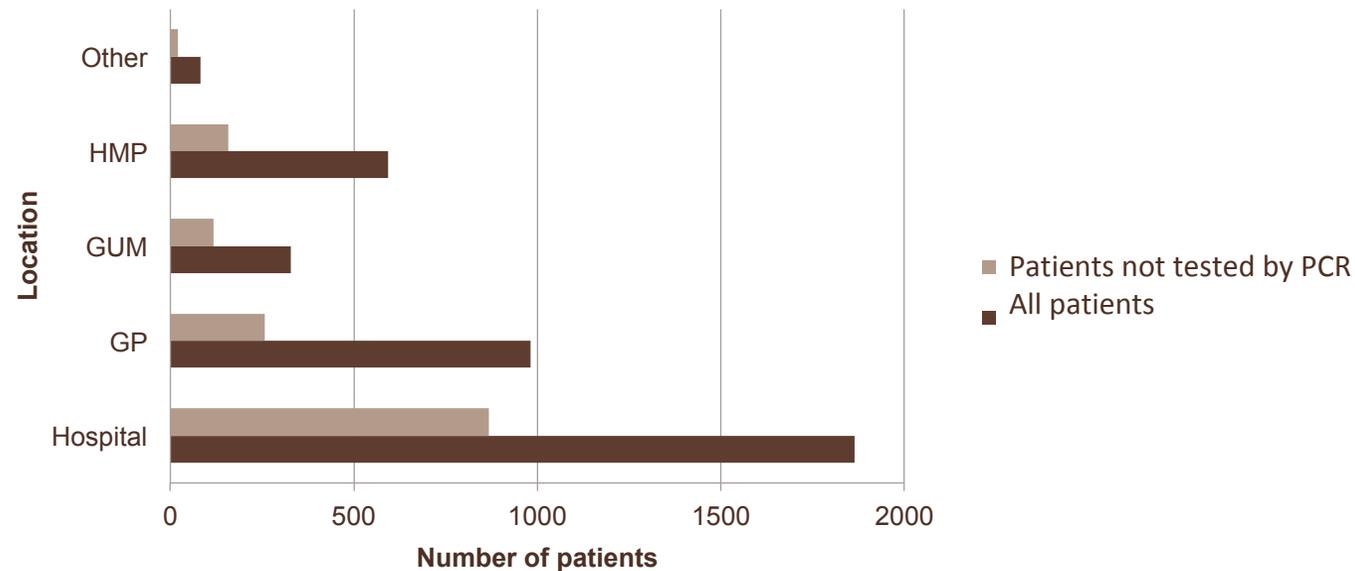
- Included results: 3,847
- Male: 63%
- Median age 41 (18-93)



Results - follow-up PCR testing

- **Standard not met:** 63% of first positive serology results were followed-up with PCR to detect viraemia.

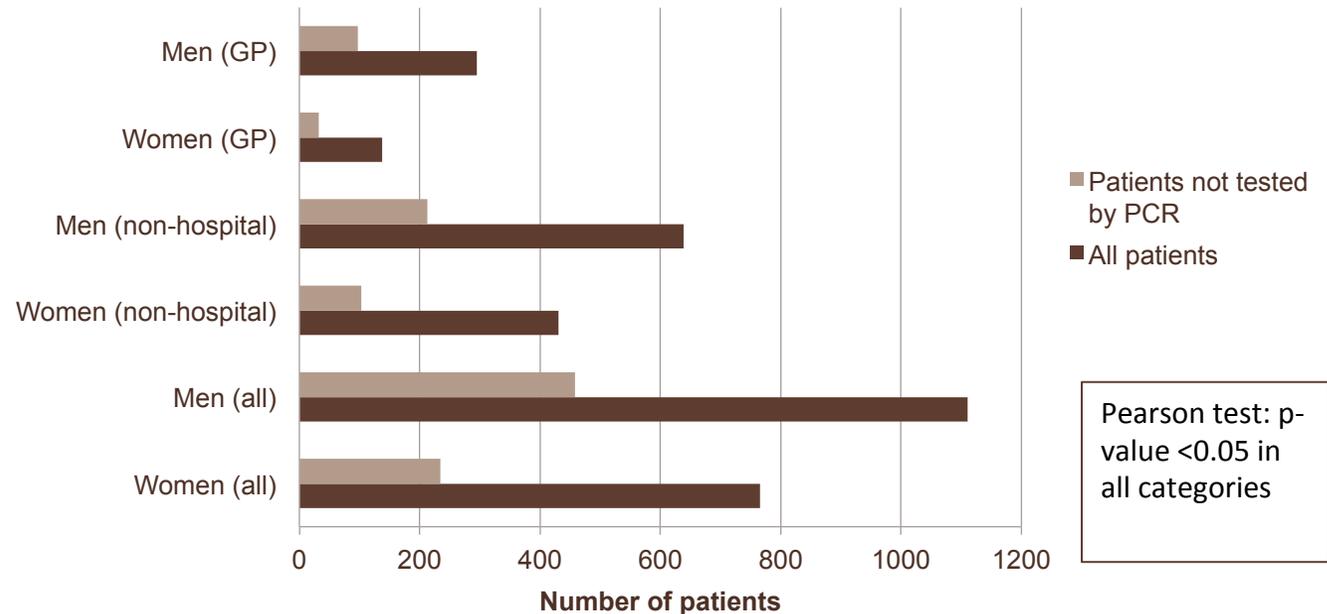
Samples not tested by PCR by location



Results

- Women are generally more likely to be tested by PCR than men

Samples not tested by PCR by location in men versus women: ages 18-40



Discussion

- Our data suggests that a significant number of patients, who may be eligible for novel HCV treatments, have not received follow-up PCR following first positive serology testing.
- Gender differences in follow-up testing likely reflect differences in health-seeking behaviours.



Discussion

- We estimated a short-term increase in the cost to the health system of PCR testing 100% of patients.
 - Eventual cost savings in the future
- Chief limitation: reliance on laboratory-level data to infer first positive HCV serology, without additional information about the context of results or follow-up.
- Lack of national data coordination places unnecessary financial and logistical burden on laboratories and primary care related to unnecessary testing and follow-up.

Conclusions

- Audit standard was not met, and a significant number of patients who may become eligible for novel HCV treatments did not receive follow-up testing by PCR within 12 months of first positive serology.
- The projected cost implications of treatments, as well as the current burden of unnecessary or incomplete testing, would support a coordinated HCV testing strategy.

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- Leicester: Sharon Koo
- Manchester: Nicholas Machin
- Preston: Leila White, David Orr
- Shrewsbury & Telford: Yasar Hussain

NITCAR <http://nitcollaborative.org.uk/wp/>

Thank you for listening

