Hepatitis C Screening Guideline Development Group
Background to recommendation 11: People who received medical or dental treatment abroad

The purpose of this document is to provide the background information to the formulation of recommendations by the Guideline Development Group (GDG).

Not all evidence in this document is presented in the National Clinical Guideline.

The National Clinical Guideline is available from: http://health.gov.ie/national-patient-safetyoffice/ncec/national-clinical-guidelines/

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History of development of the recommendation

Date	Process	Outcome
02/06/2015	Recommendations from quality appraised national and international guidelines reviewed	Agreed further evidence required on risk
02/02/2017	GDG subgroup meeting to undertake considered judgement process	Formulation of recommendation
23/02/2017	Review of subgroup recommendation by GDG	Recommendation accepted
25/04/2017	Consultation feedback reviewed by GDG	No changes to recommendation
June – July 2017	Editing	Recommendation reworded in final editing process

Considered judgement process

The considered judgment form completed by the GDG subgroup in formulating the recommendations is presented below. Please note the final wording of the recommendation may have changed after review of the GDG, after the consultation process, or during the editing process.

Date:2/2/2017
Attendees:Lelia Thornton, Paula Flanagan, Eve Robinson, Shay Keating, Orla Ennis, Colm Bergin

Table 1: Considered judgement form

1. What is the question being addressed? Present PICO if relevant
Q2. Who should be offered screening for Hepatitis C? b. Should the following specified groups be offered screening? xiv. **Those who received medical treatment in high prevalence countries** This includes travellers and emigrants who have required medical or dental treatment while abroad and people who have travelled for the purpose of medical or dental treatment. It also includes migrants who may have received medical treatment in their country of origin or in another country, Please refer to the recommendations on screening migrants from high prevalence countries also. There will also be a separate recommendation on those who have received blood or blood products overseas.
2. What evidence is being considered to address this question and why? (This section will explain the approach taken to address this question and what GDG members are being asked to consider)
Other guidelines and primary literature. As only a limited number of other good quality guidelines made recommendations on screening of those who received medical or dental treatment abroad a literature review was undertaken to try and better evaluate the risk of hepatitis C transmission from medical or dental treatment abroad, or if any particular procedures posed a greater risk. However, the literature identified was mainly related to case reports of transmission events associated with dialysis or transplants abroad. Guidance on screening of dialysis patients who have had dialysis abroad has already been issued by the subgroup of the Standing Advisory Committee on the Prevention of Transmission of Blood-Borne Diseases in the Health-Care Setting and so will not be addressed by this question (1). As evidence is limited, the recommendation will be guided by expert opinion.
3. What is the body of evidence? Source of evidence: (tick all that apply) Guidelines ½ Primary literature ½ Other ; specify: ___________
Current Guidelines **WHO, 2016** (2)Persons who have received medical or dental interventions in health-care settings where infection control practices are substandard should be offered testing for HCV. (*World Health Organization, Guidelines for the screening, care and treatment of persons with hepatitis C infection*). HIQA Quality Score of 148 **WHO (3)** Regarding the risk within health care settings they report that there is a high risk of

parenteral transmission in settings with a higher background seroprevalence of HCV and where infection control practices are inadequate(e.g. around diagnostic and therapeutic procedures) , and where blood transfusions and other tissue donations are not screened for viral hepatitis. (*WHO Guidelines on hepatitis B and C testing*)

SIGN 2013 (4) People who have received medical or dental treatment in countries where HCV is common and infection control may be poor should be offered screening. Scottish Intercollegiate Guidelines Network, Management of Hepatitis C A National Clinical Guideline). *HIQA Quality Score of 127.7*

Primary literature

Primary literature on the risk of HCV transmission from medical treatment or dental treatment abroad was very limited when case reports or case series of transmission events were excluded. Case reports or cases series are not included here as they mostly related to dialysis or transplant patients, which are well recognised risk settings for hepatitis C transmission, regardless of country.

Only one study was identified which examined a potential link to treatment abroad and hepatitis C. In a study of Swedish expatriates in 1995 the influence of different risk factors for viral hepatitis was assessed in 563 adults (5). The most frequently reported recognised risk factors for the acquisition of any viral hepatitis were having received an inoculation during medical or dental treatment, reported by 45% of all subjects, and having had sexual contact with the indigenous population, reported by 35%. While the study population had an increased prevalence of hepatitis B compared to the general Swedish population, the prevalence of hepatitis C was comparable.

4. What is the quality of the evidence? To be considered if primary literature was reviewed.

4.1. How reliable are the studies in the body of evidence?
If there is insufficient evidence to answer the key question go to section 11. Comment here on any issues concerning the quantity of evidence available on this topic and its methodological quality.

Healthcare abroad in setting where infection control may be poor is recognised as a risk in two good quality guidelines

4.2. Are the studies consistent in their conclusions . comment on the degree of consistency within the available evidence. Highlight specific outcomes if appropriate. If there are conflicting results highlight how the group formed a judgement as to the overall direction of the evidence

Recommendation is consistent between a number of good quality guidelines.

4.3. Generalisability . are the patients in the studies similar to our target population for this guideline? is it reasonable to generalise

Yes, as there are Irish residents who have travelled abroad for medical and dental treatment or who have had treatment while abroad. In addition there are migrants to Ireland who may have had medical treatment in their country of origin.

4.4. Applicability - Is the evidence applicable to Ireland? Is the intervention/ action implementable in Ireland?

Yes as above

4.5. Are there concerns about publication bias? Comment here on concerns about all studies coming from the same research group, funded by industry etc

n/a

5. Additional information for consideration

5.1. Additional literature if applicable e.g. Irish literature

Nil

5.2. Relevant national policy

Nil

5.3. Epidemiology in Ireland if available and applicable

Between 2004 and 2016 there were 30 notifications of hepatitis C in Ireland in which surgical or dental treatment outside of Ireland was cited as the most likely risk factor. The majority of these(n=25) were born outside of Ireland. Four were Irish born, and for one the country of origin was unknown.

In the same time period there have been 85 notifications were receipt of blood or blood products outside of Ireland was cited as the most likely risk factor. The majority of these (n=70) were born outside of Ireland. Eight were born in Ireland and the country of origin was unknown for seven cases.

6. Potential impact of recommendation

6.1. Benefit versus harm

What factors influence the balance between benefit versus harm? Take into account the likelihood of doing harm or good. Do the desirable effects outweigh the undesirable effects?

Benefits:

- Linkage to care and treatment will result in improved quality of life for detected cases.
- Raises awareness on potential risks of medical tourism

Harms:

- False positives. The rate of false positive screening results depends on the population being screened. In high risk populations false positive rates are acceptable. However, in low risk populations the positive predictive value of the screening test decreases and may not be acceptable. False-positive test results incur costs and can also cause psychological harm. Confirmatory testing reduces the false-positive rate but increases the cost.
- Will raise anxiety amongst those who have had medical treatment abroad
- Detected cases may suffer from stigmatisation.
- Opportunity cost. Diversion of resource from other risk groups where greater support is needed for testing and linkage to care.
- Potential numbers affected not known

6.2. What are the likely resource implications and how large are the resource requirements? Consider cost effectiveness, financial, human and other resource implications

Unknown, as the number of people in Ireland who have had medical or dental treatment abroad is not known.

6.3. Acceptability – Is the intervention/ option acceptable to key stakeholders?
Acceptability is not known. Those who travel abroad for treatment may not perceive that they are at risk. Acceptability amongst HCWs is unknown as they may not feel confident in assessing the risk. Those who have travelled abroad may be reluctant to disclose to their healthcare provider that they have accessed treatment abroad.
6.4. Feasibility - Is the intervention/action implementable in the Irish context?
It would be difficult for people to self assess the infection prevention and control standards of where they had treatment and it is not possible to have a prescribed list of countries as healthcare institutions may vary widely in terms of infection prevention and control standards. Implementation is likely to be through an opportunistic approach to detecting those eligible for screening.
6.5. What would be the impact on health equity?
The principle of proportionate universalism[1] should underpin the recommendations and the implementation of the guideline in order to have a positive impact on health equity.
7. What is the value judgement? How certain is the relative importance of the desirable and undesirable outcomes? Are the desirable effects larger relative to undesirable
Healthcare in a high prevalence country and where infection prevention and control standards are suboptimal is a recognised risk factor for hepatitis C transmission and therefore anyone potentially exposed to hepatitis C in this way should be offered testing. It is recognised that implementation of this recommendation will be difficult and will be likely be on an opportunistic basis.
8. Final Recommendations
Strong recommendation ½Conditional/ weak recommendation **Text:** People who have received medical or dental treatment in countries where HCV is common (anti-HCV prevalence ≥2%*) and infection control may be poor should be offered screening. **please refer to table xx for a list of countries this includes* (Table to be available in guideline and online) Level of evidence supporting recommendation: low
9. Justification
Healthcare in a high prevalence country and where infection prevention and control standards are suboptimal is a recognised risk factor for hepatitis C transmission and therefore anyone potentially exposed to hepatitis C in this way should be offered testing. It is recognised that implementation of this recommendation will be difficult and will be likely be on an opportunistic basis.

[1] Proportionate universalism is the resourcing and delivering of universal services at a scale and intensity proportionate to the degree of need. http://www.healthscotland.com/documents/24296.aspx

10. Implementation considerations
Implementation will likely be through opportunistic screening and based on the clinical judgement of healthcare workers. Migrants from high prevalence countries who have received medical or dental care will also be eligible for screening under the recommendations on migrants.
11. Recommendations for research List any aspects of the question that have not been answered and should therefore be highlighted as an area in need of further research.

Review by GDG

Date: 23/02/2017

Recommendation accepted

Consultation feedback and review by GDG

Please see *Report of the consultation process* for feedback received.

No material change to recommendation.

Final recommendation

Recommendation 11

11.1. Screening for HCV should be considered in people who have received medical or dental treatment in countries where HCV is common (anti-HCV prevalence ≥ 2%*) and where infection control may be poor.

*Please refer to Appendix 2 for a list of countries with an anti-HCV prevalence ≥ 2%.

Quality/level of evidence: low

Strength of recommendation: conditional/weak

References List

1. Subgroup of the Standing Advisory Committee on the Prevention of Transmission of Blood-Borne Diseases in the Health-Care Setting. Blood borne viruses in the haemodialysis, CAPD and renal transplantation setting, July 2014. Dublin: HSE HPSC; 2014. Available from: https://www.hpsc.ie/A-Z/Hepatitis/HepatitisC/Guidance/File,4374,en.pdf.
2. World Health Organization. Guidelines for screening, care and treatment care of persons with hepatitis C infection. Updated version, April 2016. Geneva: WHO; 2016. Available from: http://apps.who.int/iris/bitstream/10665/205035/1/9789241549615_eng.pdf?ua=1.
3. World Health Organization. Guidelines on hepatitis B and C testing. Geneva: WHO; 2017. Available from: http://www.who.int/hepatitis/publications/guidelines-hepatitis-c-b-testing/en/.
4. Scottish Intercollegiate Guidelines Network. Management of hepatitis C; A national clinical guidance. Edinburgh: SIGN; 2013. Available from: http://www.sign.ac.uk/assets/sign133.pdf.
5. Struve J, Norrbohm O, Stenbeck J, Giesecke J, Weiland O. Risk factors for hepatitis A, B and C virus infection among Swedish expatriates. Risk factors for hepatitis A, B and C virus infection among Swedish expatriates. 1995;31(3):205-9.

Appendices

Evidence search and results

International and national guidelines

HCV guidelines identified, reviewed, and quality appraised as described in the National Clinical Guideline.

Grey literature

Nil used.

Primary literature

The GDG determined that to formulate a recommendation further information was required on the risk of hepatitis C acquisition from medical treatment overseas?

PICO
Population: people who have received medical or dental treatment abroad
Intervention: n/a
Comparison: n/a
Outcome: prevalence of HCV, incidence of HCV

Search strategy
Sources:

- Medline
- Embase

See table 2 for search terms used in Medline search

Study type/ limits: experimental or observational studies, case studies, case reports; published between 1 January 1990 and 30 June 2015

Inclusion criteria:

- Reports on prevalence/ incidence in people who received medical or dental treatment abroad.
- HCV status based on blood/ saliva rather than self report
- From 1990

Table 2: Search terms used in Pubmed/Medline search

S1	hepatitis c or HCV or hepacivirus or hep c or hepC	Search modes - Boolean/Phrase	76,787
S2	(MM "Hepatitis C+")	Search modes - Boolean/Phrase	41,868
S3	(MM "Hepacivirus")	Search modes - Boolean/Phrase	17,492
S4	S1 OR S2 OR S3	Search modes - Boolean/Phrase	76,787
S5	risk factor*	Search modes - Boolean/Phrase	812,653
S6	(MH "Risk Factors")	Search modes - Boolean/Phrase	606,129
S7	S4 AND S6	Search modes - Boolean/Phrase	7,630
S8	(medical treatment* or surgery or surgical or medical care or procedure* or dental or dentist or blood transfusion*) N5 (overseas or abroad or international or foreign)	Search modes - Boolean/Phrase	7,242
S9	S7 AND S8	Search modes - Boolean/Phrase	6
S10	S4 AND S8	Search modes - Boolean/Phrase	21

Search results

Figure 1: PRISMA flow diagram of review of literature on risk of HCV from medical or dental treatment abroad