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Hepatitis A in primary care:

working in partnership for diagnosis, management, and prevention of outbreaks

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INTRODUCTION

GPs have a unique role in caring for patients with hepatitis A and a statutory duty for reporting suspected notifiable diseases including hepatitis A.[1,2] Early identification in primary care and notification to Public Health England (PHE) is vital for effective management of cases and the prevention and control of the spread of infection. The aim of this article is to highlight the vital role of GPs in working collaboratively with PHE for the diagnosis, management, and prevention of cases and outbreaks of hepatitis A, as outlined in the recently updated PHE guidelines.[3]

EPIDEMIOLOGY OF HEPATITIS A

Around 300 cases of hepatitis A are reported annually,[4] with 3–4 local clusters reported to PHE each year.[3] In 2017, there was a surge in the number of hepatitis A virus cases (942 cases) as a result of a large outbreak predominantly in men who have sex with men (MSM), and further transmission into the wider community.[4]

Hepatitis A is spread via the faecal–oral route mainly through person-to-person contact in developed countries, and through food and water contaminated by faeces in countries with poor sanitation standards.[3] Transmission in people who inject drugs is thought to be direct person-to-person[5] contact through the faecal–oral route because of poorer hygiene and unstable living conditions.[6] Transmission between MSM individuals is thought to occur during sex through the faecal–oral route.[6] The average incubation period is 28 days (range: 15–50 days). Patients are infectious from 2 weeks before the onset of symptoms (when infectivity is maximal), and until 1 week after.[7] In children <5 years, 80–95% of the infections are asymptomatic, whereas in adults 70–95% of infections have clinical manifestations.[3] The prodromal phase of the disease can include symptoms of malaise, anorexia, nausea, fever, and dark urine lasting for 2–3 days.[7] Jaundice appears in <10% of children aged <6 years, around half of older children, and 75% of adults.[7] In pregnant women, there is an increased rate of miscarriage and premature labour proportional to the severity of the infection.[8] For patients previously infected with hepatitis A, immunity is lifelong.[7]

PRIMARY PREVENTION

Safe and highly effective vaccines are the mainstay for prevention of hepatitis A. Pre-exposure immunisation with two doses of monovalent hepatitis A vaccine with an interval of 6–12 months is recommended for people at high risk of exposure to the virus and will confer long-term immunity of at least 20 years.[9] National immunisation guidance outlines risk groups that should be vaccinated. During the 2016–2017 hepatitis A outbreak in MSM,[10] revised sexual health guidance reinforced opportunistic immunisation of MSM attending genitourinary medicine (GUM) and HIV clinics.[8] Increased opportunistic immunisation of MSM in GUM clinics with prompt post-exposure immunisation of household and family contacts in primary care are likely to have contributed to the curtailment of the outbreak in the broader community.[11] Testing for previous exposure to hepatitis A prior to immunisation is not routinely required and should not delay immunisation in outbreak situations.[8]

Hygiene measures are extremely important in the prevention of hepatitis A, especially good hand-washing technique, that is, washing hands thoroughly with soap and warm water after using the toilet, after changing a baby's nappy, and before preparing and eating food. Alongside immunisation, travellers should have heightened awareness to avoid exposure to contaminated food and water in countries of high and intermediate endemicity of hepatitis A.[12] GPs are one of the key professionals for providing travel advice and immunisation. Therefore, their role in the prevention of travel-associated hepatitis A is pivotal. Advice on good hygiene during sex should also be highlighted, especially in MSM.[3]

PRIMARY CARE RESPONSE

If a patient presents with flu-like illness and/or gastrointestinal symptoms with or without jaundice, it is important to consider the risk factors that could increase clinical suspicion of hepatitis A (such as, travelling or residing in areas of high or intermediate prevalence, chronic liver disease, haemophilia, MSM, people who inject drugs, occupational risks), especially in the absence of immunisation or past infection. The possibility that the patient may be a close contact of a case of hepatitis A should also be ascertained.[3] Prompt diagnosis and management of cases and close contacts are critical; GPs are therefore integral in the prevention of household transmission and community clusters.

If the patient experiences severe illness with vomiting, dehydration, or any signs of hepatic decompensation, they should be hospitalised immediately.[8] Patient management is mainly supportive, with rest, hydration, and avoidance of alcohol. All cases thought to have acquired hepatitis A sexually should be considered for, or offered, a sexually transmitted infection (STI) screen, or referred to a GUM clinic.[8] The patient should be excluded from work, school, or nursery, until 7 days after the onset of jaundice (or other symptoms in the absence of jaundice) as they will still be infectious. Written and verbal advice should be provided to the patient and their family about hepatitis A and good hygiene measures.[3] Advice is available on the NHS website and an information sheet appended to the national public health guidance.[3]

Laboratory investigations showing reactive anti-hepatitis A virus (HAV) IgM are consistent with recent HAV infection. However, this result needs to be interpreted in the context of other tests[13] and the clinical presentation of the patient: the date of onset of jaundice (or other symptoms in the absence of jaundice), anti-HAV IgG, liver function tests, age of the patient (false IgM results are common in older patients who may have had hepatitis A as children), and other risk factors for hepatitis A.[3] Serum HAV RNA confirms current infection, and NHS laboratories should forward samples to PHE's Virus Reference Department at Colindale for confirmation and sequencing.

PUBLIC HEALTH RESPONSE

The aims of the public health response are to ensure that further transmission is minimised by managing the case until the end of the infectious period, identifying the source of the exposure, and identifying and managing close contacts (mainly household and sexual contacts) who may have been exposed to the virus during the infectious period. This is facilitated by PHE's Health Protection Teams (HPTs), with the support of local authority Environmental Health Officers (EHOs), helping to complete the case surveillance questionnaire. The HPT will also risk assess for the propensity for wider spread, for example, if the case attends nursery or works as a food-handler, and will recommend further actions.

Close contacts should be offered immunisation (and, if indicated, human normal immunoglobulin [HNIG] to confer rapid protection by passive immunity) according to their age, susceptibility, health status, the period of exposure to the index case, and whether a high-risk setting is implicated.[3] The HPT works closely with the GP by providing guidance and support to ensure that immunisations are arranged for all close household and sexual contacts.

As hepatitis A is a notifiable disease, GPs will need to contact the local PHE HPT as soon as possible to report a suspected case, and, if there is more than one case with probable links, suspicion of an outbreak. In the event of an outbreak, PHE will urgently convene and chair a multi-agency team, including commissioners, providers, EHOs, virologists, and, where appropriate, representatives from implicated institutions (such as, schools, nurseries, workplaces, and care homes).[3] A diagram representing the recommended actions of primary care/public health staff on encountering a possible and/or confirmed case of hepatitis A is available from the authors on request.

CONCLUSION

GPs are a first point of clinical contact for possible cases of hepatitis A and are required by law to notify PHE. They therefore have a vital role in partnership with PHE in the management of hepatitis A and the control of outbreaks, community clusters, and household transmission via immunisation, as highlighted in the recently updated PHE guidelines. GPs also play a role in providing preventive advice and immunisation to people who travel to endemic countries.

Provenance

Freely submitted; externally peer reviewed.

Competing interests

Professor Nick Harding works within a practice that is reimbursed for giving the hepatitis A vaccine.

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