Editorial

Preventing transmission of hepatitis C due to unsafe injections should be a priority for Pakistan

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Pakistan has one of the highest burdens of hepatitis C virus infection (HCV) in the world. A national survey conducted in 2007 reported the prevalence of hepatitis C infection to be 4.8%,[1] the highest among its neighboring countries. A conservative estimate would mean eight million persons infected with this life threatening illness.

In India,which has multiple similar socio cultural practices but is much larger in size and population, the prevalence of hepatitis C in recent studies is reported to be 1-2% based on data from community based surveys.[2,3] In China, the most populated country in the world and even in Wuwei City which has the highest prevalence of hepatitis B virus (HBV), the prevalence of hepatitis C is reported to be 1.64%.[4] In Afghanistan a review has reported the prevalence 1.9% for HBV and 1.1% for HCV.[5] In Iran, a study published in 2005 reported that the prevalence is low and less than 1% in the general population.[6]

The World Health Organisation defines a safe injection as follows: "a safe injection should not harm the recipient, should not expose the provider to any avoidable risks and should not result in waste that is dangerous for the community." However, in Pakistan, numerous studies in the past have established a strong association between unsafe injections which includes an injection given with a syringe used on another patient and unnecessary injections which means an injection prescribed even when not clinically warranted. A recent study examined current risk factors for HCV transmission in a hospital population in Karachi, Pakistan. The study enrolled 300 laboratory-confirmed HCV-positive participants and 300 laboratory-confirmed HCV-negative participants from clinics at Indus Hospital. Independent and significant risk factors for both men and women were: receiving >12 injections in the past year, blood transfusions, having had dental care, and delivery in hospital or transfusion for women.[7]

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Pakistan Field Epidemiology and Laboratory Training Program (FELTP) established a hepatitis sentinel surveillance system in five large public hospitals in four provinces and Islamabad Capital Territory from June 2010 through March 2011. A total of 712 cases of viral hepatitis were reported; newly reported HCV infection accounted for 53.2% of reported cases, followed by acute hepatitis A (19.8%), acute hepatitis E (12.2%), and newly reported HBV infection (10.8%). A history of health-care-related exposures, particularly receipt of therapeutic injections and infusions, were commonly reported by persons infected with HBV and HCV.[8] The national survey of 2007 had also shown strong association between hepatitis C infection and exposure to unsafe therapeutic injections.

Unsafe injections in Pakistan are provided by trained and untrained healthcare providers commonly known as general practitioners (GPs). The primary reason to prescribe injection is to provide quick relief and make extra money. These GPs are at the forefront of providing healthcare in the country primarily because public health facilities providing primary health care are located at a distance which is hard to reach for the common person and the quality of health services provided is poor. These GPs are from the community and people know them. Unfortunately a large majority of them are not physicians and are either health workers (health technicians, dispensers or nurses) and sometime completely unexposed to any healthcare training or medical degree. Even though they can provide an injection but are not authorised to write a prescription and are not medically aware of the right reasons of prescribing an injection. It is not possible to determine their actual number but anecdotal reports suggest that they may be more than 500,000. A study by Ministry of Health in 2009 conducted a mapping of healthcare providers and their injection prescribing practices in rural district of Sindh (TandoAllahyar) and another district Rawalpindi (both urban and rural) in Punjab. There were 7439 providers in Rawalpindi and 894 in TandoAllahyar. About 60% of the injection providers were untrained and almost everyone was prescribing injections for conditions where oral

alternates were available. Reuse of injection equipment was observed in 20% facilities in TandoAllahyar and 7% in Rawalpindi.[9]

According to WHO (http://www.who.int/mediacentre/factsheets/fs164/en/) hepatitis C can be transmittedthrough exposure to infectious blood. This can occur through:

◆ receipt of contaminated blood transfusions, blood products and organ transplants;

◆ injections given with contaminated syringes and needle-stick injuries in health-care settings;

◆ injection drug use;

◆ being born to a hepatitis C-infected mother;

◆ hepatitis C may be transmitted through sex with an infected person or sharing of personal items contaminated with infectious blood, but these are less common.

Studies in Pakistan have cited other, exposures to unsafe practices such as reuse of blades for shaving and arm pit shaving by barbers, unsafe dental and cosmetic procedures.[10-13] Relating these risk factors to Pakistan there is a dearth of epidemiological data about how many persons receive unscreened blood, organ transplants, dental or cosmetic procedures. Out of all hepatitis C infections this proportion cannot be more than 15-20% which leads to a safe assumption that most of hepatitis C infection is transmitted through unsafe injection practices. One thing is also clear. Pakistanis receive a lot of injections and a lot of injections in Pakistan are unsafe. A population based study in rural Pakistan calculated that the number of injection per person per year was 13.6. The same study documented that only half of the injections were provided with a new syringe meaning that 50% injections were unsafe.[14]

The treatment for hepatitis C is long term and expensive, out of reach of the majority of hepatitis C infected patients. An audit of government hepatitis treatment programme showed that poor follow up and inadequate documentation of serological/biochemical tests were the major drawbacks in both hepatitis B and C patients, resulting in important wastage of human and financial resources without proper planning and accountability.[15]

Field experience has shown that the problem of reuse of injection equipment has significantly decreased in urban health centers due to increased awareness. However, it is still rampant in rural and remote areas which expose the patients to the risk of acquiring hepatitis C and B infections.

The fragile healthcare system of Pakistan cannot afford to provide treatment to patients infected with hepatitis B or C. In the absence of an available vaccine for hepatitis C prevention and extremely expensive and long term treatment, the old adage that, prevention is better than cure, is still the best remedy.

The following recommendations are believed to curb the menace of hepatitis C as well as hepatitis B that are mainly transmitted through unsafe injection practices in Pakistan:

1. Legislation on rational prescription of injection through the revision of the national list of essential medicines and the development of treatment guidelines and their wide dissemination.

2. National information campaign on the issue of reuse of injection equipment on several patients and the risks related to this unsafe practice with clear emphasis on penalty. If such practice is reported by patients or observed.

3. The same legislation should also clearly mention the urgent need for a sound sharps waste management to avoid scavenging and reuse of syringes.

4. Define practical steps involving the district health management to control quackery in the country.

5. Introduction of injection safety as a topic in the medical curriculum including MBBS, nursing and all other related courses such as health technicians, dispensers etc.

6. Immediate introduction of reuse prevention devices (RUPs) in the curative sector while sustaining the use of auto disable (AD) syringes for immunization injections.

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