

A third major human immunodeficiency viruses (HIV) outbreak in Larkana, Pakistan: caused by unsafe injection practices

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Larkana is a rural town located in north western part of Sindh province of Pakistan. It is the heartland for the political party that has been ruling the province since 2008. According to 2017 census, the estimated population of Larkana district is 1.5 million persons.¹ After experiencing two human immunodeficiency viruses (HIV) outbreaks, the city has encountered a third outbreak. This time among children.

The first HIV outbreak in Larkana occurred in 2003 among people who inject drugs (PWIDs) when 17 out of 175 (9.7%) PWIDs were confirmed HIV positive.² The second outbreak happened in 2016 among patients receiving renal dialysis at the dialysis unit of a teaching hospital in Larkana. Out of 20 patients 19 (95%) were confirmed HIV positive.³

In the third week of April 2019, a local general practitioner (GP) of Rato Dero reported noticing an unusually high number of emaciated children aged between seven months to eight years. He referred these patients to a non governmental organization's (http://pphisindh.org/pphiweb/index.php/what-is-the-pphi/) health facility providing services in Rato Dero. The health facility provides HIV testing services free of cost. Twelve children were found HIV positive on rapid testing kits. However, these kits were not World Health Organization (WHO) approved so the samples were sent to the Referral Laboratory of Sindh AIDS Control Programme in Larkana which is 22 kilometres away. The Referral Laboratory confirmed five (one female and four males) children with HIV between the ages of nine months and eight years. The parents of these five children were also screened and no one was found to be HIV positive. A medical officer of Sindh AIDS Control Programme (co author in this editorial) was deployed to ensure that the children and others were linked to HIV care and treatment. He gathered as much detail as possible by visiting the area and interacting closely with the district health management and local health care

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providers, both trained and untrained. The most probable cause of this HIV outbreak seems to be exposure to unsafe health care practices, specifically reuse of injection equipment (syringes and needles) and drip sets by untrained health care providers practicing in and around Rato Dero area.

As a knee jerk reaction, the local district and health administration have started mass HIV screening of the general population of the area and not giving importance to the investigation of this outbreak. The local media is sensationalizing the whole issue and changing numbers of HIV positive on daily basis. This kind of practice is counterproductive. What is required is a proper epidemiologic outbreak investigation by public health experts. The previous two outbreaks^{2,3} in Larkana region happened in high risk population i.e. PWIDs and dialysis patients whereas this one has occurred in low risk population so it is all the more important to ascertain the precise mode of transmission of this outbreak.

Pakistan has a long standing history of unsafe injection practices and this risk has been identified in a number of studies as one of the leading cause of spread of viral hepatitis B (HBV) and hepatitis C (HCV) infections.⁴⁻⁷ A little over a year ago unsafe injections were identified as the key risk factor in transmitting HIV infection among 22 (27.5%) persons screened out of 80 in Kot Imrana town of Punjab, Pakistan.⁸ The spill over of HIV infection in Larkana region is possibly as a result of high HIV prevalence found among key population (KP) in the last surveillance round. Larkana is one of the few towns of Pakistan where there is still a functioning brothel not only for females but young male and transgender sex workers also as sex workers in small dingy rooms in the town centre which are cheaply available. HIV prevalence among KP in the National HIV Surveillance Round of 2016-17 reported HIV among PWIDs 16.2%, transgender sex workers 18.2%, male sex workers 5.0% and female sex workers 4.1%.⁹ These are phenomenally high percentages and sex workers reported entertaining 2-4 clients per day and with considerably low condom use in last paid sexual encounter.⁹ Factors such as high HIV prevalence among KPs and previous outbreak of HIV

among dialysis patients³ indicating unregulated blood banks selling blood without proper screening and unsafe health care practices can assist in spreading the HIV infection.

The district health management has developed an "Anti Quackery Unit" which on paper is tasked to deal with untrained health care providers. However, interaction with locals informed that many of these untrained providers are politically connected and even if their health settings are closed they are able to reopen in short period of time and start practicing as health care providers. The website of Sindh Health Care Commission mentions, "According to Pakistan Medical and Dental Council, at an estimate more than 600,000 quacks are operating across Pakistan and one-third of them are practicing in Sindh. More worrying is the fact that majority of them, estimated to be around 200,000, are practicing in the province of Sindh."¹⁰ It further states that, "An integrated Anti-Quackery Approach for SHCC with the consensus of all stakeholders and in accordance with National cum provincial needs with the ultimate goal to ban quackery and help in provision of quality health care services to the population."¹⁰ Sindh Health Care Commission requires a bold and honest confrontation to address this problem which is playing with patients' lives.

Sindh AIDS Control Programme spearheads all HIV and acquired immunodeficiency syndrome (AIDS) prevention efforts in the province. There is an ARV Treatment Centre in Civil Hospital Larkana but there is no one deputed there to manage paediatric cases who have to come to Karachi which is about 450 kilometers away. It needs to ensure that these young children are provided ARV medicines along with all the necessary guidance to their parents.

The menace of quackery is wreaking havoc with people's lives. No one but the government's regulatory bodies such as district administration and health management can stop it. There is an urgent need to institute HIV prevention programmes for PWIDs and sex workers in Larkana. The prevention programmes should be well thought of and have a team of trained outreach workers who can access the key population. Besides educating

the high risk group persons on HIV prevention methods including condom promotion, these groups should be offered HIV testing service as per WHO guidelines and initiate treatment among those who are HIV positive. Training of local GPs on infection prevention and control measures and rational prescription of injection will also help in preventing furthering of blood borne infections such as HIV, HBV and HCV.

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