

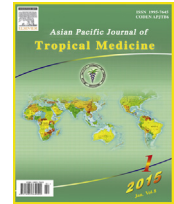
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## Are efforts up to the mark? A cirrhotic state and knowledge about HCV prevalence in general population of Pakistan

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Dear Editor,

Pakistan is declared a 'cirrhotic state' by WHO with approximate 10 million Hepatitis C Virus (HCV) infections. In fact Pakistan ranked second in world after Egypt [1]. About 15%–45% of infected persons naturally clear the virus within 6 months of infection and do not need any treatment. The remaining 55%–85% of persons will develop chronic HCV infection. Of those with chronic HCV infection, the risk of cirrhosis of the liver is 15%–30% within 20 years [2]. These chronic infections resulted in great stress on the community both economically and socially [3]. In a low income country like Pakistan, the standard care of antiviral regimes including interferon and direct acting antiviral therapies resulted in enormous burden on government budget as well as community.

HCV is a plus stranded RNA virus and there are many diagnostic techniques available for screening of infection. Antibody and nucleic acid based tests are in routine use across the globe [4]. Early diagnosis of infection can prevent health problems that may result from infection and prevent transmission of the virus. Although the monitoring of higher risk groups of a particular infection is highly recommended, knowledge about prevalence of any pathogen in general population is necessary to help better planning for the future. Pakistan with quite high burden of HCV infection needs a proper surveillance system for the sero-prevalence of infection to have information about the kinetics of infection spread and identify hot spot for the infection. To the best of my knowledge, the data search of last five years (2010–2014) showed that there are only 17 studies and there is no study in 2015 (Table 1) [5–21].

Among reported studies only five studies included more than 2500 individuals while all other reports were based on small number of participants. The low number of reports covers specific areas of the country and most of these reports were based on small number of study individuals. These factors may impact the actual picture about the HCV prevalence in the whole country and might result in falsified image. Accordingly the range of HCV sero-prevalence in general population in Pakistan varied from 3.13% to 23.83%. Similarly year wise HCV prevalence showed great variation, the prevalence was 9.57%, 6.04%, 7.46%, 4.9% and 11.04% in 2010, 2011, 2012, 2013 and 2014 respectively. This variation in general population showed that the data is not showing the real image of the scenario.

Keeping in view the high endemic condition of Pakistan, the current information about the sero-prevalence of HCV in general public is negligible. The current information is from the big cities and with very low number of participants (except few studies) while rural areas are neglected. It can be hypothesized that the infection rate might be higher in rural areas of the country because of lack of education, awareness about the spread routes of the virus, information about precautionary measures. It is highly recommended to do systematic prevalence studies in general population across the country so the actual picture should be clear and will be helpful for policy making. By having a well develop surveillance system, areas with higher density of infection could be identified. Massive community education programmes should be warranted for those areas and neighborhoods to better management of infection and contain the spread in the healthy population.

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**Table 1**

Comprehensive review of HCV prevalence in healthy population of Pakistan (2010–2014).

No.	Year	Place/city	Method	Sample size (N)	Sero-prevalence (%)	Reference
1	2010	Swat	ICT	590	8.81	[5]
2	2010	Swat	PCR	590	4.20	[6]
		Mansehra	ICT	400	7.00	
3	2010	Mansehra	PCR	400	3.50	[7]
		Thatta/Nausheroferoz	ICT	303	25.10	
4	2010	Karachi	EIA	1997	23.83	[8]
5	2010	Karachi	ICT	504	3.17	[9]
6	2010	Multiple cities	ELISA			[10]
		Multan		625	9.60	
		Lahore		1892	9.40	
		Faisalabad		2736	8.80	
		Gujranwala		16522	7.30	
		Gujrat		9770	6.80	
		Sargodha		1620	6.70	
		Rawalpindi		445	6.70	
		Sialkot		24707	6.20	
		Bahawalpur		363	5.00	
		Islamabad		252	24.60	[11]
7	2010	Islamabad	ICT	252	24.60	[11]
8	2010	Mansehra	ICT	648	10.34	[12]
9	2010	National Survey		47043	4.87	[13]
10	2011	Gujranwala	EIA	2502	2.32	[14]
11	2011	Karachi	EIA	32049	9.75	[15]
12	2012	Kech	EIA	2000	5.50	[16]
13	2012	Punjab	EIA	–	3.13	[17]
14	2012	Rawalpindi	PCR	303	17.20	[18]
		Islamabad	PCR	200	4.00	
15	2013	Lahore	PCR	4246	4.90	[19]
16	2014	Mardan	ICT	1419	11.70	[20]
		Mardan	PCR	1419	8.50	
17	2014	Peshawar	CMIA	982	12.93	[21]

**Conflict of interest statement**

The author declares that he has no conflict of interest.

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