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'Medical Devices Prone to Hacking'

Harjinder Singh Lallie speaking with Dr SS Badrinath at Sankara Nethralaya

CHENNAI: Among the major entities targeted by hackers around the world, healthcare institutions come in as a close second after financial institutions. But unlike many banks which are securely strapped with high-end cyber security systems, healthcare is wide open, posing a high degree of risk. "We don't give the same significance that we give to money, to something that saves our lives," said Harjinder Singh Lallie, principal teaching fellow in the area of Cyber Security at the University of Warwick.

Speaking at Sankara Nethralaya recently about Cyber Security in Healthcare and Devices, he emphasised on India's potential to be at the forefront of creating cyber-security for the health sector. He noted that there is a global push for making personal medical documents available on an internet interface, especially in the UK. In India, with the arrival of Digilock in March 2015, that permits an Aadhar card holder to upload secure proof documents online, medical institutions could follow suit.

The weak link, he stated, was the knowledge of a medical device's Internet Protocol (IP) address, which is its unique identifier. It allows a hacker to communicate directly with the device, steal information and possibly even reconfigure it. This throws open the possibility for crimes like Intellectual Property theft, blackmail, espionage and more, within the ambit of the medical circuit.

Inside a hospital too, there is a whole slew of instruments — patient monitors, ventilators, pacemakers, insulin pumps, X-ray machines and infusion pumps — that are sensitive to this risk.

Only last year, 375 US-based health organisations' data was compromised, according to a report by SANS, an organisation that conducts research on cyber security.

At the same time, a comprehensive data-sharing network would make those long, arduous medical processes swifter and allow for patients to be treated quicker, especially in India. And despite the lacunae currently inherent in them, networking medical systems are poised at being the future of all healthcare systems.

This is where Lallie stated that training students in hacking systems becomes an essential part of curriculum. "I teach them to hack into the weak links in a system to know how to defend it when they go out as professionals," he said.

http://www.newindianexpress.com/cities/chennai/Medical-Devices-Prone-to-Hacking/2015/06/10/article2857924.ece