**PHYSICIAN PERCEPTION SURVEY REGARDING ABBOTT (FORMERLY ST. JUDE) CYBERSECURITY VULNERABILITIES AND FIRMWARE UPGRADE FOR PACEMAKERS**

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**Objective:** Due to FDA concerns, Abbott (formerly St. Jude) recently offered a firmware update on its pacing platform. We sought to do a global survey to determine the perceptions and attitudes of providers towards this issue.

**Method:** We developed a questionnaire and sent it via “Survey monkey” to different physicians and also uploaded it on social networking websites (like twitter).

**Results:** Total of 63 responses were received. Majority were Electrophysiolgists (n=51/63) from North America belonging to a mix of practice settings like private, academic or hospital based. Around 54% (n=34/63) reported that >75% of their patients with Pacemaker (PM)/Implantable cardiac devices (ICD) are on remote monitoring and 30 % (n=19/63) reported that 50-75% of their PM/ICD patients are on remote monitoring. Only 51 % (n=32/63) agreed to the fact that ICD platforms are at risk of medjacking. Majority (~59%) reported that they are somewhat familiar with the principles of medjacking of ICDs and around 90% (n=57/63) were aware of potential cybersecurity vulnerability of Abbott (formerly St. Jude Medical) enabled pacemakers. Majority (n=34/63) of them had both verbal and written communication from Abbott about this issue but only few (n=7/63) of them had any kind of communication on this issue from hospital administration. Majority (53/63) of the respondents were aware of firmware update offered by Abbott and around 75% (47/63) were also aware of the potential risks with the firmware upgrade. Only 15 respondents reported routine upgrade of the devices and 4 of them were not aware of the risks associated with the upgrade. Around 40 % (n=25/63) reported complications associated with the firmware upgrade with only 6 of them reporting it in their own practice and 20% (n=5/25) of these complicated upgrades required an emergent generator change. Around 63 % (n=40/63) of respondents do believe that this issue is universal and not limited to only Abbott.

**Conclusion:**Around half (n=31/63) of the respondents believe that more robust initiatives should be taken by the manufacturers and the professional societies to educate the physicians around the globe, about this issue. And the best platform to begin with is review papers and webinars.