Cyber-Security for BLE Medical Devices

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1 Cyber-Security Guidelines in Korea

보다 나은 정부 청렴韓세상

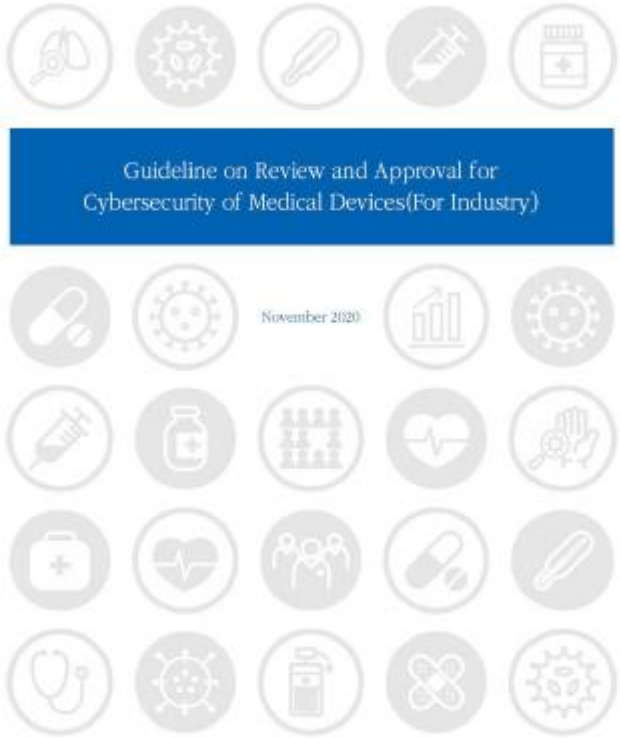
의료기기의 사이버 보안 허가·심사 가이드라인 (민원인 안내서)

2019. 11. 28

보다 나은 정부 청렴韓세상

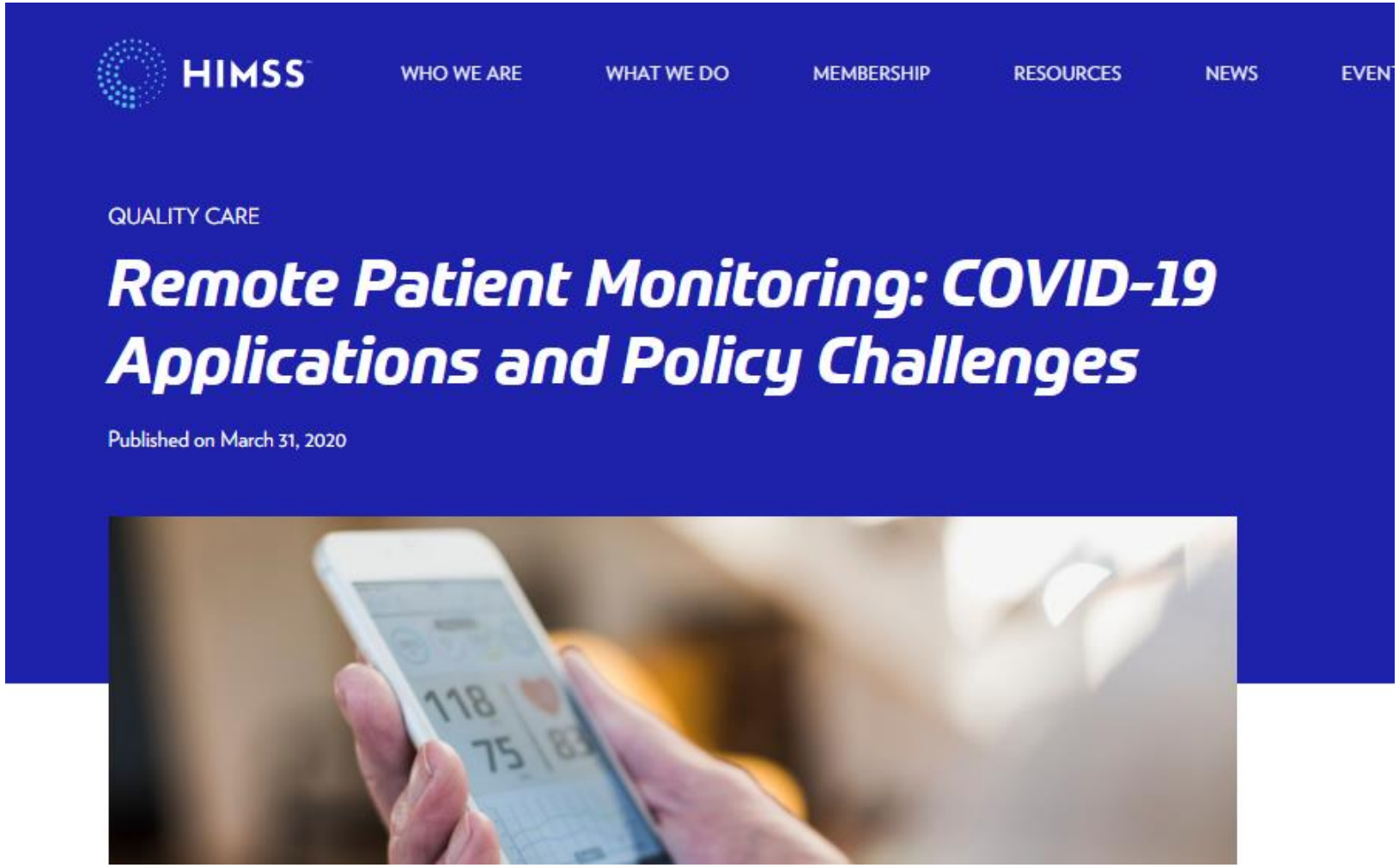
의료기기의 사이버 보안 적용방법 및 사례집(민원인 안내서)

2019. 11. 28



Ministry of Food and Drug Safety
Medical Device Evaluation Department

2 Cyber-Security and COVID-19



3 Probable attacks on BLE communications

Spoofing

Sniffing

4 BLE Communication Perspectives

- Recommended BLE Security level for high-risk devices
  - BLE 4.0/4.1: Security level 3
  - BLE 4.2 or later: Security level 4
- Pairing/Bonding
  - MITM(Man In The Middle)
  - Numeric comparison, Passkey Entry, or OOB(Out of Band)
- LESC(LE Secure Connection)

5 UX Perspectives

- Separate pairing process and data transfer process
  - For data transfer, minimize users' intervention to increase usability.
  - For pairing, special users' action(for example, press and hold a button for a long time) is required although it's not easy for some users.
  - The whitelist feature in Bluetooth connection is generally followed.

Thank You