Medical Device Plug-and-Play (MD PnP) Interoperability Program

WHAT WE ARE

An inter-disciplinary, multi-institutional program leading the evaluation and adoption of open standards and technology for medical device interoperability to support clinical innovation. The integration of individual medical devices into patient-centric networked systems can provide real-time comprehensive data for the electronic health record (EHR) and can create integrated clinical environments to support innovation in patient safety and workflow improvements, including clinical decision support, safety interlocks, and closed-loop control of medication, fluid delivery, and ventilation.

WHO WE ARE

A geographically-dispersed diverse group of stakeholders who want to improve patient safety and healthcare efficiency through innovations enabled by medical device interoperability:

WHAT WE ARE DOING

The MD PnP program is providing leadership and expertise to accelerate the adoption of medical device interoperability. We are eliciting clinical requirements from clinicians, creating a repository of clinical "use case" scenarios, and leading a writing team that is drafting a multi-part standard for the Integrated Clinical Environment (ICE) to support interoperability. The MD PnP Lab in Cambridge, MA, is a vendor-neutral "sandbox" to evaluate candidate interoperability solutions to clinical problems, model use cases, develop and test related network and security systems, and support interoperability and standards conformance testing.

HOW YOU CAN PARTICIPATE

- **Clinicians** can contribute clinical scenarios (or "use cases") to ensure that new interoperability standards and technology will enable meaningful clinical solutions.
- **Engineers** can analyze clinical use cases to generate functional specifications, assess current standards to perform gap analyses, and evaluate proposed technologies.
- **Healthcare delivery systems** can specify performance requirements, and require adherence to medical device interoperability language in vendor contracts.
- **Regulatory agencies** can create new paradigms for regulatory clearance of interoperable medical devices.
- **Medical device vendors** can participate in the development and adoption of interoperability standards, and partner with the MD PnP Program to develop a shared interoperability testing environment.
- **Interoperability Promoting Organizations** can support revising existing standards to meet clinical requirements, collaborate on clinical use-case implementations in the MD PnP Lab, and ensure that through collaboration we shepherd the adoption of medical device interoperability to empower innovation in the safety and efficiency of health care.