5G for the Healthcare

Site connectivity & management

e.g. connectivity for staff, patient and visitor devices. Tracking staff, inpatients and visitor devices. Tracking staff, inpatients and equipment, Control of equipment. Facility monitoring and maintenance. Smart parking and traffic management.

5G enhancements: Increased data capacity of a site's wireless networking. Increased capacity for connected devices per wireless access point.

Usage: Guaranteed defined levels of connectivity performance. Supporting control of robots and AGVs with low-latency response. Supporting low-latency connectivity for critical and intensive care units.

Emergency handling

Patient assessment and treatment onsite. Remote guidance for paramedics. Remote control of equipment. Dedicated network resources.

5G enhancements: Increased network capacity to carry large volumes of data, e.g. medical images. Increased network capacity to carry data continuously.

Usage: Guaranteed defined levels of connectivity performance. Sufficiently low latency for collaboration between ambulance and hospital staff. Sufficiently low latency for remote control of equipment at emergency site.

Remote & extended practice

e.g. Real-time diagnosis and treatment conferences. Remote guidance for staff. Multisite/multidisciplinary collaboration. Remote control of therapeutic and surgical equipment.

5G enhancements: Increased data capacity of sensor and actuator connectivity. Connectivity for large numbers of sensors and actuators.

Usage: Guaranteed levels of connectivity performance. Supporting real-time transmission and analysis of big data sets. Latency low enough for remote control of equipment. Capacity and latency sufficient for continuous feedback and haptics.

Outpatient treatment & management

e.g. Remote advice and consultation. Remote guidance for self-treatment. Biometric monitoring. Control and monitoring of medication. Remote monitoring and control of equipment in patients' homes. Mobile clinics.

5G enhancements: Increased capacity for connected devices per access point. Increased capacity of the network to carry large volumes of data, e.g. high-res medical images.

Usage: Latency low enough for remote control of equipment and continuous feedback.

Training and education

e.g. Virtual Reality-based training. Augmented Reality-guided training. Haptic simulation. Real-time remote tuition.

5G enhancements: Increased capacity of the network to carry large volumes of data, e.g. high-res medical images.

Usage: Latency low sufficient for instant response to movement of VR and AR headsets. Capacity and latency sufficient for continuous feedback.