GS1 identifiers

GTIN (Global Trade Item Number)

Products such as medicinal products, medical devices, medical consumables, vaccines, blood derivatives and raw materials at all product and packaging levels (e.g. unit of use, primary packaging, retail unit, inner pack, case and pallet). Attributes such as batch/lot number and expiry date can provide additional traceability information.
Individual trade item instance(s) can be identified by combining the GTIN with a serial number, which is mandated by an increasing number of regulations.

GLN (Global Location Number)

Locations: Theatres, Patient rooms, Wards, Pharmacies, imprest/Store rooms, Pathology, Radiology, Distribution centres, Manufacturing sites, Suppliers, Buyers and other 'locations' within the healthcare system.
Parties: Legal and functional entities, physical areas and virtual locations that need to be identified for traceability, patient activity, business transactions, cost control or other purposes.

GSRN (Global Service Relationship Number)

Subject of Care/Patient (Service recipient relationship) **& Provider of Care/Clinician** (Service provider relationship). Most commonly used within hospitals to uniquely identify patients and caregivers (clinician, ward staff, volunteers etc.). Capable of encoding legacy Unique Reference Number (URN) / Medical Reference Number (MRN), individual health identifiers. For patients, used to enable consistent Positive Patient Identification (PPID) across all hospital systems and processes. Used for caregiver identification where there is a need to capture information for Positive Patient Identification (PPID) purposes or to assist in tracking activities to a particular staff member within systems.

GIAI (Global Individual Asset Identifier)

Unique **asset** reference for identifying individual asset instances regardless of type. For use on all assets from Office equipment, IT equipment, Cages etc. where no aggregation by type is required.

And more.

Other standards

SNOMED CT (Systematized Nomenclature of Medicine / Clinical Terms)

It is the most comprehensive and precise clinical health terminology product in the world, owned and distributed around the world by SNOMED International. SNOMED CT has been developed collaboratively to ensure it meets the diverse needs and expectations of clinicians worldwide and is now accepted as a common global language for health terms. Improved health records, clinical decisions and analysis, leading to higher quality, consistency and safety in healthcare delivery benefit from SNOMED CT. www.snomed.org

DICOM (Digital Imaging and Communications in Medicine)

It is the international standard to transmit, store, retrieve, print, process, and display medical imaging information. It makes medical imaging information interoperable, integrates image-acquisition devices and Picture Archiving and Communication System PACS). www.dicomstandard.org

ISBT 128

ISBT 128 is the global standard for the terminology, identification, coding and labelling of medical products of human origin (including blood, cell, tissue, milk, and organ products). ISBT 128 provides international consistency to support the transfer, traceability and transfusion/transplantation of blood, cells, tissues and organs. www.iccbba.org

HL7 (Health Level Seven International)

It is a standard developing organization dedicated to providing a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services. www.hl7.org

IHE (Integrating the Healthcare Enterprise)

This is an initiative promoting and supporting the integration of systems in the healthcare enterprise. As a meta standard organisation, IHE develops profiles where standards such as HL7, SNOMED or GS1 are used, with a strong focus on interoperability between heterogeneous IT systems. www.ihe.net

The Global Language of Business

Cooperating standards in healthcare

GS1 standards and other standards cooperating in clinical treatment scenarios

GS1, the global language of business

GS1 standards create a common foundation for a business by uniquely identifying, accurately capturing and automatically sharing vital information about products, locations and assets. GS1 standards are now present across many sectors such as healthcare, fresh foods and foodservice.

An increasingly important collaboration

GS1 Healthcare is a neutral and open community bringing together all related healthcare stakeholders to lead the successful development and implementation of global GS1 standards enhancing patient safety, operational and supply chain efficiencies.

We work to help the healthcare sector achieve harmonised implementation of global standards in business and clinical processes enabling interoperability, optimal quality and efficiency of healthcare delivery to benefit patients. The development and implementation of GS1 standards are led by the experts who use them: pharmaceutical and medical device manufacturers, wholesalers, distributors, group purchasing organisations, hospitals, pharmacies, logistics providers, solution providers, governmental and regulatory bodies, and trade associations. GS1 Healthcare members include over 100 leading healthcare organisations worldwide.

GS1 standards are open, global, proven and simple

Open, technology-independent standards permit full interoperability and compatibility. End users are not locked into proprietary solutions and R&D resources can be released up for other benefit developments once standards have been adopted.

Healthcare is by nature a global sector, with supply chains that often cross borders. A globally standardised system for traceability, from product manufacture to patient treatment, is imperative to comply with the increasing legal requirements for product traceability around the world. In cases of cross-border trading, a global trade item number (GTIN) can be used to identify that product in any country without any restrictions or errors.

Cooperating standards in healthcare

GS1 standards and other standards cooperating in clinical treatment scenarios

Arriving by ambulance

Ambulance staff secure Jane's condition along the journey to the emergency department. They proceed a first examination and inform the emergency department about Jane: demographics, injury, conditions.

First examination

Arriving at emergency department, Jane is questioned by a nurse and then a doctor to evaluate her condition; decision is to bring her in the ward where the injury can be further investigated. Jane is given a wristband.

X-ray examination

Technician proceeds to radiology examination and searches Jane's previous examination results (from an earlier accident).

To the ward

The normal admission process occurs. Doctor visit scheduled.

Doctor consultation and medical care

Doctor examines Jane, documents her electronic record, prescribes laboratory and radiology examinations and schedules surgery.

Operating room

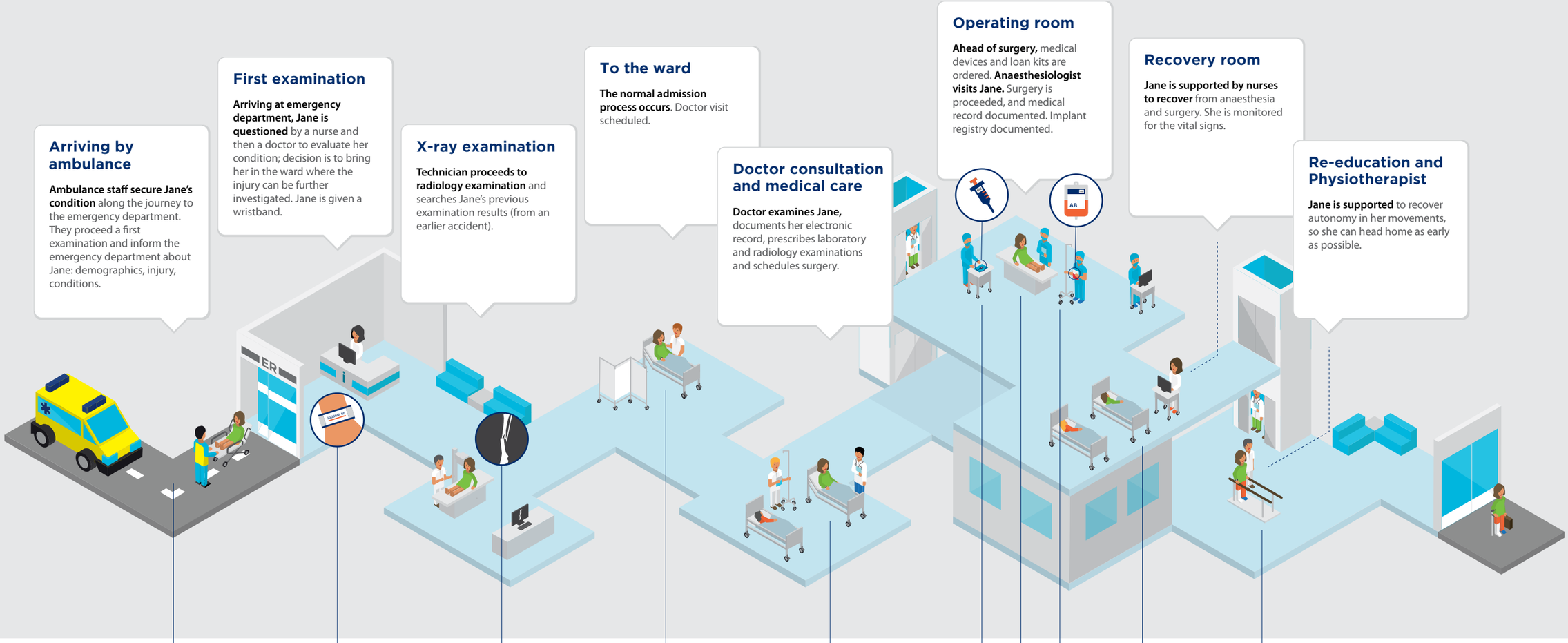
Ahead of surgery, medical devices and loan kits are ordered. **Anaesthesiologist visits Jane.** Surgery is proceeded, and medical record documented. Implant registry documented.

Recovery room

Jane is supported by nurses to recover from anaesthesia and surgery. She is monitored for the vital signs.

Re-education and Physiotherapist

Jane is supported to recover autonomy in her movements, so she can head home as early as possible.



	1 Ambulance	2 Emergency room	3 X-ray	4 Admission	5 Consultation	6 Operating room	7 Recovery	8 Re-education	Acronym Decoder
GS1 standards									
GTIN						● ●			Global Trade Item Number
GLN				●		●	●	●	Global Location Number
GSRN		●		●	●			●	Global Service Relationship Number
GIAI	●		●						Global Individual Asset Identifier
Other standards									
SNOMED	●	●			●	●	●	●	Systematized Nomenclature of Medicine
DICOM			●		●				Digital Imaging and Communications in Medicine
ISBT 128						●			ISBT 128
HL7	●	●	●	●	●	●	●	●	Health Level Seven International
LOINC					●				Logical Observation Identifiers Names and Codes