

GS1 Standards on Surgical Instruments

Improving Patient Safety and Economic Efficiency in Japanese Hospitals.

Summary

Several Japanese hospitals have started to use Direct Part Marking (DPM) to manage the sterilisation of surgical instruments. Utilising GS1 standards, GTIN, GIAI and GLN, has brought beneficial results in terms of both traceability and cost reduction in hospital management.

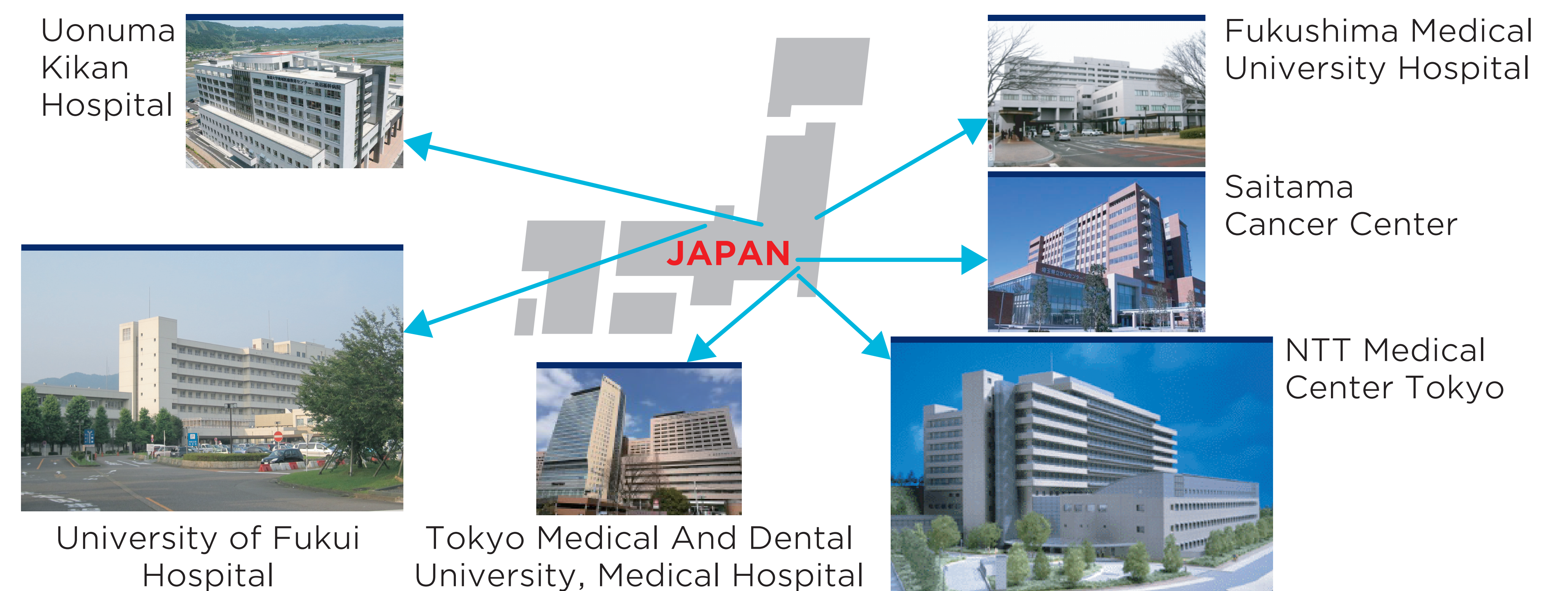
Background

The Japan Association of Medical Devices Industries released guidelines on DPM for surgical instruments in 2006. The guidelines showed the need for DPM and symbol marking using GS1 standards. In 2013, IMDRF UDI guidance and U.S. FDA UDI rules were announced. Now, there are great expectations that using DPM for surgical instruments will improve patient safety and the quality of medical care.

GS1 DataMatrix DPM



More and more hospitals are using GS1 DataMatrix to trace surgical instruments



NTT Medical Center Tokyo

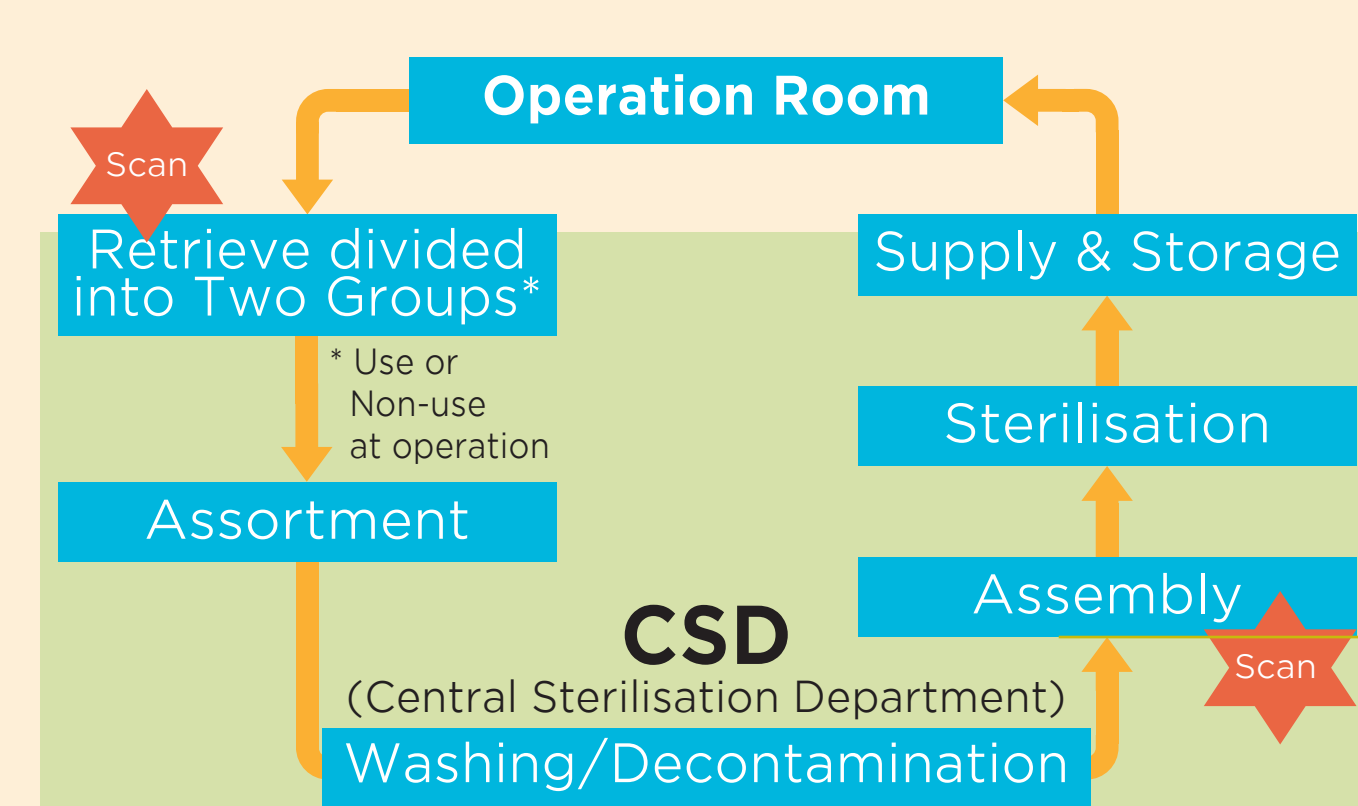
from 2011

Solution

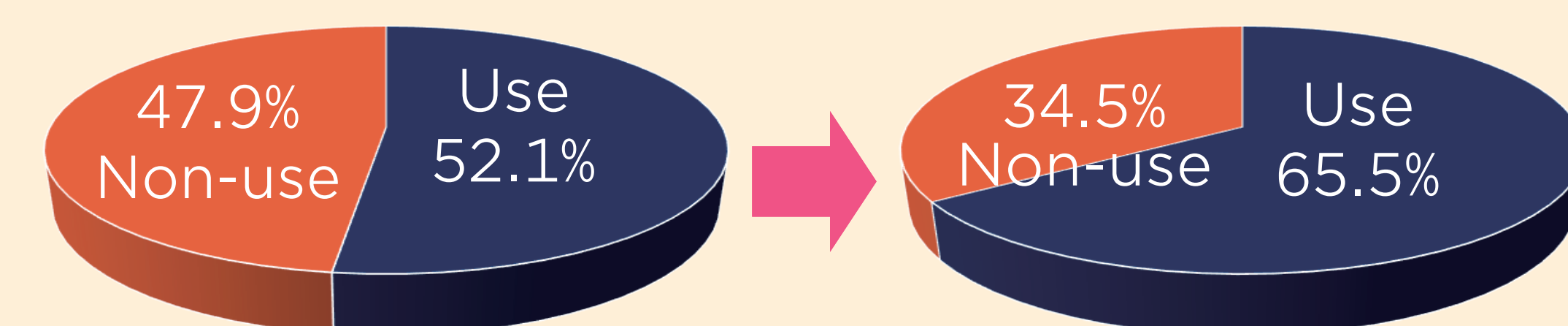
- ✓ **GIAI** (GS1 DataMatrix) In-Hospital Marking
- ✓ **GTIN** (GS1 DataMatrix) Source Marking

Work flow

GS1 DataMatrix is scanned twice in the flow



Reduction of Instruments and Increase of Usage Ratio



ex.) Abdominal operation set

Benefits

- ✓ Scanning GS1 DataMatrix in the assembly process reduced the setting errors to **1/20**
- ✓ Grasping usage history reduced the number of instruments by **30%**
- ✓ Optimizing costs based on work data reduced labor costs by **15%**

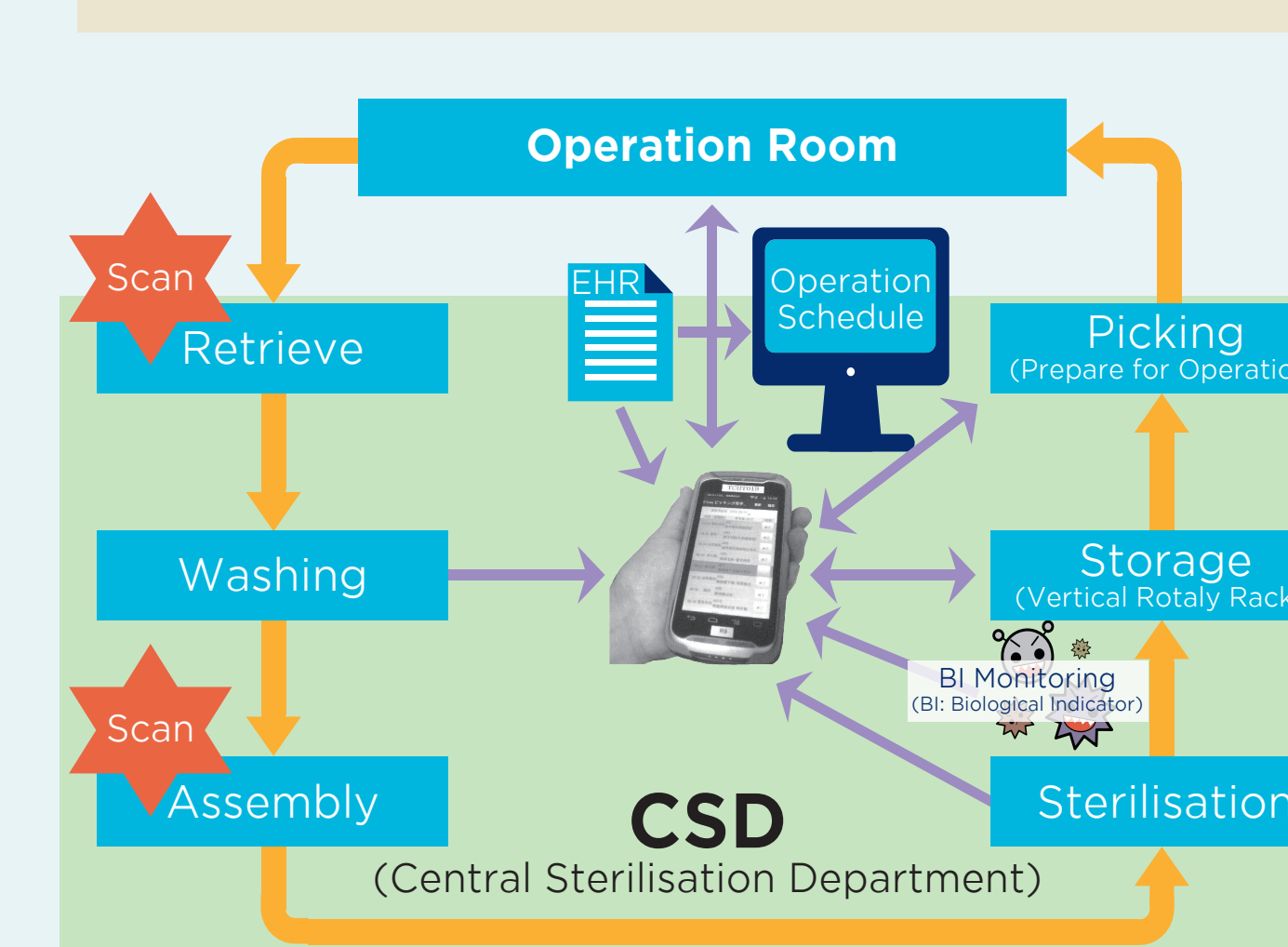
University of Fukui Hospital

from 2014

Solution

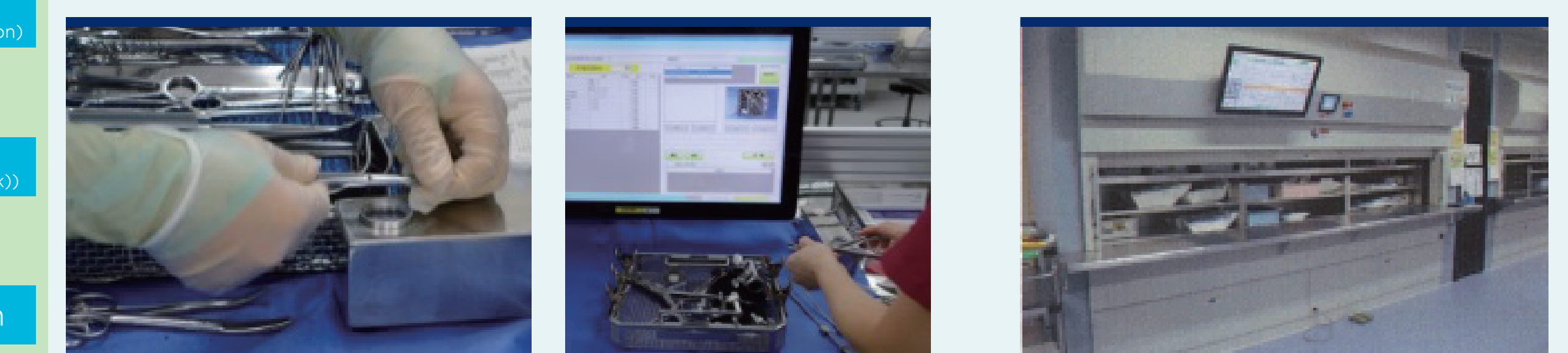
- ✓ **GIAI** (GS1 DataMatrix) In-Hospital Marking
- ✓ **GTIN** (GS1 DataMatrix) Source Marking
- ✓ **GLN** Assignment for Theatre, Ward, Shelf, etc.

Work flow



GS1 DataMatrix is scanned twice in the flow

GLN assigned every Shelf in the Surgical Container Storage Cabinet



Post operation

Assembly

Picking

Benefits

- ✓ Scanning GS1 DataMatrix ensured the traceability of instruments
- ✓ Scanning GS1 DataMatrix reduced the working time for retrieving and assembling instruments by **2,000 hrs.** per year
- ✓ The entire hospital plans to make further use of GLN, in addition to using in both OR and CSD