RFID Surgical Instrument Tracking

Three Steps To 100% Control
RFID Surgical Instrument Tracking

Achievable Stages
Spa Track recommends the gradual implementation of RFID technology for surgical instrument tracking and offers three modules, to suit hospital plans and budgets. The phased solution delivers savings and efficiency gains at each stage and builds up to 100% surgical instrument control capturing all relevant data throughout an instrument’s entire lifetime and linking it to the records of every patient it touches.

The Journey So Far
The majority of instruments today have no identification, whilst some are barcoded. Barcode methods such as key dots and laser marking last typically three years. Manually hand scanning each barcoded instrument and tray at relevant points in the process creates extra work and re-marking instruments every three years, due to chemical erosion, is expensive over the life of an instrument. Spa Track’s smart RFID pods last 10 years and much of the scanning is automatic, although hand held RFID scanners are an option at some stages of the instrument cycle.

RFID Proven Success
A number of industries have already successfully replaced barcoding with RFID to solve their particular logistics and asset tracking challenges. Automotive, Aerospace and Retail are all good examples of sectors where RFID is making a real difference.

RFID Delivers More
RFID is perfect for surgical instrument tracking because it can bulk-count a tray of surgical instruments in seconds, highlighting missing instruments instantly. However, until now there has been no proven solution. By following three achievable steps with Spa Track, hospitals are able to capture all the relevant data necessary regarding trays, supplementary items and tray-sets at every key point throughout the hospital cycle - to deliver 100% control and confidence, whilst lowering staff costs.

A Journey in Stages

100% CONTROL

TRAY-SET TRACKER
SUPPLEMENTARY TRACKER
TRAY TRACKER
Step 1

**TRAY TRACKER**

- Replace your existing barcode or manual tray tracking systems with RFID
- Spa Track has developed a fit-for-purpose tag and reader combination for tray tracking
- Your new RFID tray tags sit alongside your barcodes during the transition period
- The physical RFID tray tagging can be done by your own staff or it can be outsourced to Spa Track
- The special RFID tray tags are securely bolted to your trays
- Tray Tracker provides a simple ‘save as’ programme for converting barcode data over to your new RFID tray tags
- Spa Track’s high performance hand held RFID readers replace your barcode scanners
- A range of RFID portal readers are positioned at strategic points around the hospital
- Spa Track’s tray tags offer a read range over 5 metres to enable easy searching in theatre stores
- RFID tags can be read through your sterile tray packaging

Step 2

**SUPPLEMENTARY TRACKER**

- Before now, supplementary instruments were the most difficult to track not being part of a tray-set
- Spa Track has developed a range of tiny RFID pods specifically for surgical instrument tracking
- These smart pods are robustly laser welded directly onto surgical instruments
- Alternatively they can be securely tie-wired onto instrument handles
- Spa Track offers a welding and tie-wire service to hospitals
- Spa Track supplies both hand scanners and desk top tablet scanners

Step 3

**TRAY-SET TRACKER**

- The Spa Track smart pods have been developed with all the challenges of surgical instruments in mind
- There is a range of sizes available from Spa Track - all suitable for ‘on-metal’ healthcare applications
- The RFID chips themselves are embedded within bio-compatible plastic to provide a rugged protective shell
- This shell makes the pod suitable for laser welding securely onto metal instruments
- The Pod attachment by laser welding can be done by approved instrument service providers or Spa Track
- Spa Track has developed a unique conveyor driven scanner for the operating theatre and cleaning areas
- The conveyor scanner reads complete trays of instruments instantly (up to 50 pieces)
- In seconds results are displayed on a touch screen highlighting any missing items with descriptions and pictures
- The scanner can also print out the tray contents sheet for operator signature or a non-conformance document
- Spa Track offers integration with leading hospital software systems so that instrument data captured can be recorded in patient records
The barcode was probably the most remarkable invention of the 1950s. It triggered a technological revolution for industry in terms of automatic identification. However, barcoding adds cost to surgical instrument tracking because of the hand scanning involved, whilst RFID technology opens up a range of efficiency-enhancing, cost-saving benefits as the next generation track and trace technology.

Cost Comparison
Barcoding may appear to offer a lower cost for initial instrument identification compared to RFID tagging, however, the staff scanning costs for each instrument and re-marking costs add up significantly over the life of an instrument. RFID systems offer huge labour savings and reliability over the years of an instrument’s use and deliver a much better overall return on investment.

Benefits:
- RFID tags don’t need to be positioned in line of sight – no manual searching for small barcode marks
- Spa Track RFID readers can automatically multi-scan a complete tray of instruments
- Tray cycle count times down from 1 hour to just 1 minute
- RFID enables huge efficiency gains for operating theatres and HSDU
- RFID tags can be read without any manual intervention
- Spa Track’s smart RFID pods carry large amounts of data and have read/write capabilities
- RFID scanners read through your instruments’ sterile packaging
- Spa Track’s smart RFID pods have a 10-year life span
- Laser marked barcodes and key dots have to be re-applied typically every three years
- Instruments with re-marked barcodes are confusing for the operator
- RFID enables automatic tracking through doorways and portals
- RFID offers real-time tracking of instruments from HSDU through Operating Theatres and back to HSDU
- Spa Track colour-coded smart pods meet the CJD pre and post 1997 directive

Take the first step towards 100% control now by contacting Spa Track’s team of RFID experts to arrange a review of your unique surgical instrument tracking requirements.