A Proof of Concept
Centralised Reprocessing

Moya Alexander
Decontamination Lead
Imperial College Healthcare Trust
Big Ben and Houses of Parliament

Tower Bridge

The London Eye

Changing the Guard at Buckingham Palace
Where we were 2009/10

- Scopes reprocessed by clinical units and staff
- 23 different areas reprocessing – limited risk management
- Additional space and staff would be required to comply with guidance
- No room for future growth
- Potential revenue savings by releasing trained staff
- No robust quality assured processes in place
- Awaiting new guidance
What influences reprocessing and decontamination of flexible endoscopes?

Health and Social Care Act 2008

ISO Standards
- ISO 15883: Washer disinfectors
- ISO 13485: Medical devices

Department of Health (DH)

Care Quality Commission (CQC)

Notified Bodies

Joint Advisory Group (JAG)

Medical Devices Directive 93/42/EEC

Choice Framework Policy and Procedure (CFPP) 01-06
Initial requirements for/from Suppliers

- Put together a schedule of weekly and daily throughput of scopes from figures obtained from the Users/departments.

- Initial figures were obtained in 2009 and rechecked before this process in 2010

- Details of each scope in individual departments and number of additional scopes required.

- These were sent to the NHS Supply Chain to get Suppliers to quote.

- Quotes were for one central location and also for units on the 3 main Imperial sites (HH, CXH, SMH)

- 6 suppliers quoted

- Requested information for whole life cycle of machines

- Warranty period

- Life span of machines

- All maintenance costs to include PPM
  HTM 2030 testing
  Any other maintenance

- Utilities to include
  Amount of water used per cycle
  Electricity running costs

- All consumables
  disinfectant/detergent/chemicals
  Price per cycle
  What other products can be used?

- Training

- Ancillary requirements
From 6 Suppliers to 3

- Suppliers presented their presentations:
  - questions asked and clarified
  - evaluated by all users
    Urology
    Theatre/ITU
    Endoscopy
    ENT
    Private Patients
    Estates
  - further clarifications collated and sent out
- Short listed 3 suppliers

- Calculated down time per week/month/year
- Where are machines manufactured?
- How many sold in the UK?
- 3/5 reference sites in the UK?
- Guaranteed response times for repairs/callouts
- How many dedicated engineers for region?
- Which region does the engineer/s cover?
- UPS supply – impact on machine if power supply fails?
- On pass through machines which side is printer?
From 3 Suppliers to 1

- 3 shortlisted suppliers invited for an around the table meeting which was attended by:
  - Nominated User
  - Decontamination Lead
  - Estates
  - Authorised Engineer AE(D)
  - NHS Supply Chain

- Short listed to one supplier on non financials.
- For financial evaluation all 3 companies were given specific numbers of washers and dryers in order to calculate whole life cycles for 5 years.

- Machine wash cycle of 35 mins + preparation time of 5 mins = 40 mins per cycle
- 2 scopes per machine
- 8 hour working day
- Chose the busiest day with the highest number of scopes required for afternoon/next morning session
- Scope requirements based on information collated in December 2009
- 40% downtime for contingency based on National Guidelines
- Charing Cross 6 AERs and 8 Driers
- Hammersmith 4 AERs and 4 Driers
Preferred Supplier

- Superior customer support arrangements
- Structured training programme provided
- Trainer on site first 3 months of going live
- Daily attendance by engineers at all sites
- Good assurance on availability of engineers and equipment
- Response times better
- Fixed detergent and disinfectant costs
- Extended warranties
- Innovative ideas/solutions to extend scope storage and transportation
- Saturday callout same as for a weekday
Charing Cross Unit

Dirty Scope Route

Clean Scope Route

Staff In
Hammersmith Unit

Dirty Scope Route

Clean Scope Route
Some design considerations

To think about when designing a unit

- Build unit to the same standard as Sterile Services – HBN 13
- Uninterrupted power supply on all equipment
- Interlocking doors with lobby
- Interlocking hatch – to unit if co-located
- Gowning room
- Shoe washer
- Dedicated clean cleaners room
- Height adjustable sinks
- No copper pipes
- Ventilation - to Class 8 standard with regards particle count
  - HBN 13 – Sterile Services Department
  - HTM 03-01 Specialised Ventilation for Healthcare premises
Paddington Bear
Height Adjustable Sinks

Pass through washer disinfectors

Independent monitoring

Electronic track and trace

Drying cabinets
Reduction in Drying Cabinets utilising Vac-a-scope

Easy to identify

• Type of scope
• Fit for use

Ease of planning for Users

Choice of when to use within 30 days

Increase the life of the scopes

Protective Transportation system

Low use Users only process when needed

Less drying cabinets required
Low Temperature Sterilisation

Need for Low Temperature sterilisation

Ethylene Oxide Sterilisation in Scotland

Gas Plasma Sterilisation on site

Improve turnaround time of Robotic scopes by 10 days

Less Robotic scopes required

Able to sterilise ‘other’ low temperature items on site

Income generation for the Trust

Reduce carbon footprint
And some Soccer

Wembley Stadium

Old Trafford
Quality System

- Manufacturer’s instructions
- Audit
- Service agreements
- Process
- Document control
- Corrective action plans
- Work Instructions
- Quality System Procedures
- Technical File
- Quality Manual
- Quality Policy
- Forms

- Loan scopes
- Monitoring performance
- Product release
- Repairs
- Record keeping
- Risk Register and action plans
- Standardised ways of working
- Track and trace
Staff and training within a Quality System

- Dedicated technicians
- Mentorship and competency sign off
- Staff rotation
- Knowledge and skills to perform the tasks
- Work Instructions for efficiency of practice
- Standardised forms
- Management of risks and reduction of mistakes
- Training files
- 1:1 on the job training
- Updates from companies and suppliers
- Annual appraisals
- Ad hoc training
- Regular staff meetings
Hammersmith Hospital

Theatres
Endoscopy
Intensive Care Unit (ICU)
Speech and Language Therapy
Private Patients
Endocrinology

Six individual clinical areas reprocessing

Now

One centralised unit
Charing Cross Hospital

Theatres
Endoscopy
Urology
Intensive Care Unit (ICU)
Private Patients
Speech and Language Therapy
Ear Nose and Throat (ENT)

Seven individual clinical areas reprocessing

Now

One centralised unit
St. Mary’s Hospital

Theatres
Endoscopy
Intensive Care Unit (ICU)
Urology
Speech and Language Therapy
Ear Nose and Throat (ENT)
Private Patients
Paediatric Outpatients
Paediatric Intensive Care (PICU)

Nine individual clinical areas reprocessing

Planning stage for one centralised unit

Two separate units which meet essential requirements
In Conclusion

• Everything agreed prior to signing
• History and continuity go hand in hand
• Expert in the subject
• Smooth transition from project to fully operational
• State of the art facilities
• Compliance with current and future guidance
• Value for money
• Accreditation Status achieved
• Income generation
River Thames/London Eye at night