



## Solutions To Help Reduce Protein On Surgical Instruments

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If you have any questions about the issues raised in this booklet,  
please contact your Surgical Holdings representative for  
more information on +44 (0)1702 602050

## This guide provides practical solutions to help hospitals ensure their instrumentation complies with the Department of Health guidance for protein testing.

From July 2018, all hospitals need to regularly test surgical instruments in situ, and ensure they comply with protein levels. The aim is to reduce the amount of protein on instruments, risk of cross contamination and transmission of prions.

Surgical Holdings have produced this guide. They are an instrument solutions provider, are based in [Southend on Sea](#) and are accredited to ISO 13485.

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*SSDs should not view the 5 µg limit as a single pass or fail, but rather use it as a way of working towards and below this value. Part of trend analysis and a quality assurance system whose aim is to monitor not just the cleaning efficacy of washer-disinfectors but also the instrument journey leading up to that stage – ensuring results are being monitored and actions are being taken based on these results.*

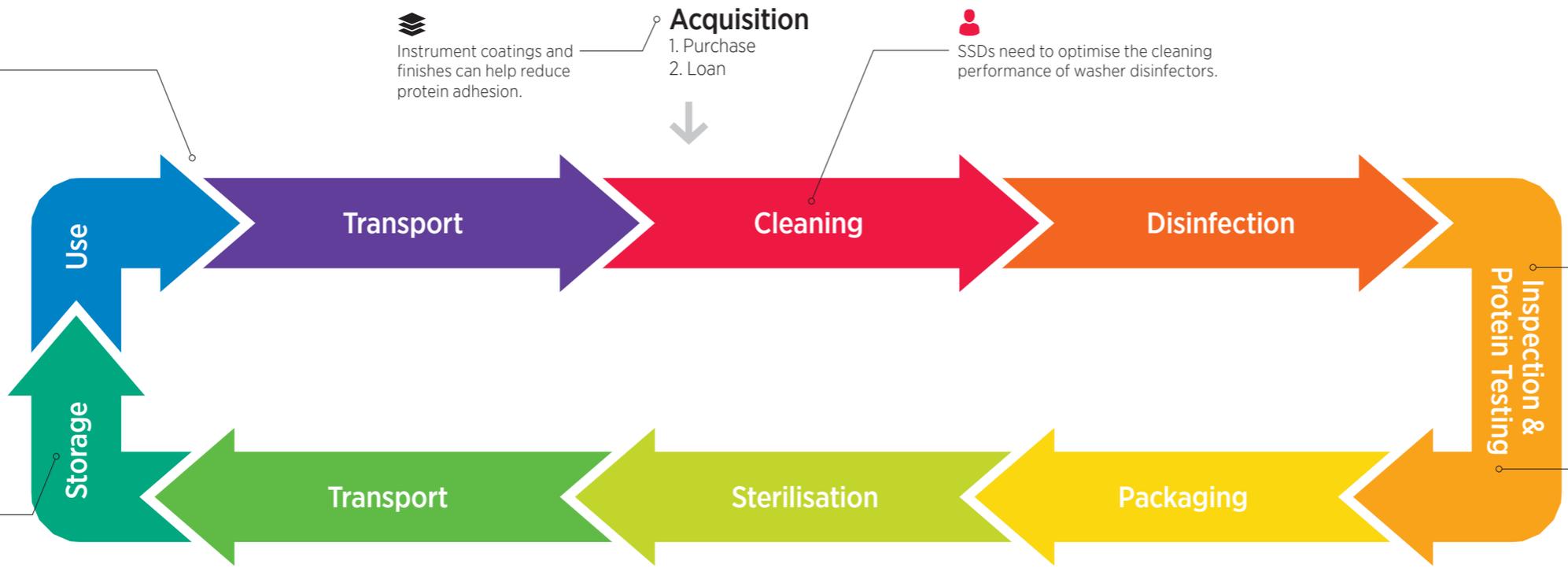
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Department of Health

# The Reusable Surgical Instrument Cycle

 Prions are easier to remove if they have not dried on the surface of an instrument. Instruments should be transported to the SSD immediately. If devices cannot be returned in a timely manner, it is important that the instruments are kept moist using appropriate methods approved and verified by the SSD.

 Instrument storage cases and baskets ensure that instruments are securely positioned and spaced to allow efficient cleaning.



 Instrument coatings and finishes can help reduce protein adhesion.

 SSDs need to optimise the cleaning performance of washer disinfectors.

 Instrument refurbishment can help smoothen the finish of instruments and reduce protein adhesion.

 SSDs should no longer rely on elution or swabbing. Testing method should be validated as being able to detect protein equivalent to ≤5 µg of BSA in situ on the surface of an instrument.



### Refurbish Instruments to Remove Protein

Refurbishing instruments can save up to **80%** of the cost of buying new, with compelling evidence to demonstrate effectiveness

Independent research<sup>1</sup> showed that instruments refurbished by Surgical Holdings had a 4 x reduction in the amount of residual protein.

The smooth and polished surface has an increased cleaning efficacy, and all repairs come with up to a 5 years warranty. Standard turnaround times are 1 week, and an express 2 day service available for urgent instrumentation.

References:<sup>1</sup> Data available on file.



Before Refurbishment

After Refurbishment



#### Rigid Endoscope Repairs

Utilising all the latest technologies used in Optical Repair, to ensure we offer the highest quality third party scope repair.

### Proactive Management Of Instrumentation

Surgical Holdings can set up and manage a refurbishment programme for instrument sets. This ensures all instruments are regularly checked, refurbished, repaired and maintained to a high standard and protein tested where required.

## Coatings for Reduction of Protein Adhesion

There are a number of finishes and coatings to choose from, and each has benefits to offer. Surgical Holdings have developed the Nero range for protein reduction and improved performance.

### Nero (Black) Ceramic



**75%**  
reduction in  
residual protein  
compared to  
Stainless Steel<sup>1</sup>

**Proven reduction**  
in bacterial adhesion compared  
to Stainless Steel<sup>3</sup>

**Can also be used as an  
instrument identifier**  
for the benefit of separating  
Post 1997 instrumentation  
(IPG 196)

**Improved  
wear resistance**  
compared to Stainless Steel,  
reducing scratch marks where  
contamination may accumulate<sup>2</sup>

Tested to  
**600**  
cycles  
without  
deterioration  
in performance

Also available in Titanium Nitride (Gold/Rose Gold)

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## Duo Finish Instrument Range – Redesigned for Reduced Protein Adherence

### DUO Stainless Steel



**Bright  
polish finish**  
on the working ends  
of the instrumentation

**Anti-glare handles**  
through fine bead blasted finish,  
which also provides increased grip

**Providing the best possible stainless  
steel corrosion resistance<sup>4</sup>**  
and the smoothest possible finish for reduced  
wettability at the working end of the device

References: <sup>1</sup> T. Secker et al. 2012, Southampton. <sup>2</sup> Kim et al. 2008, Journal of Biomed Mater Res. <sup>3</sup> X. J. Su et al. 2013, Heat Exchanger Fouling and Cleaning. <sup>4</sup> C. Honess 2006, Stainless Steel Advisory Service.

“ Modified instrument surfaces significantly  
improve decontamination performance ”

## Fixate and Organise Instruments for Enhanced Cleaning Efficacy

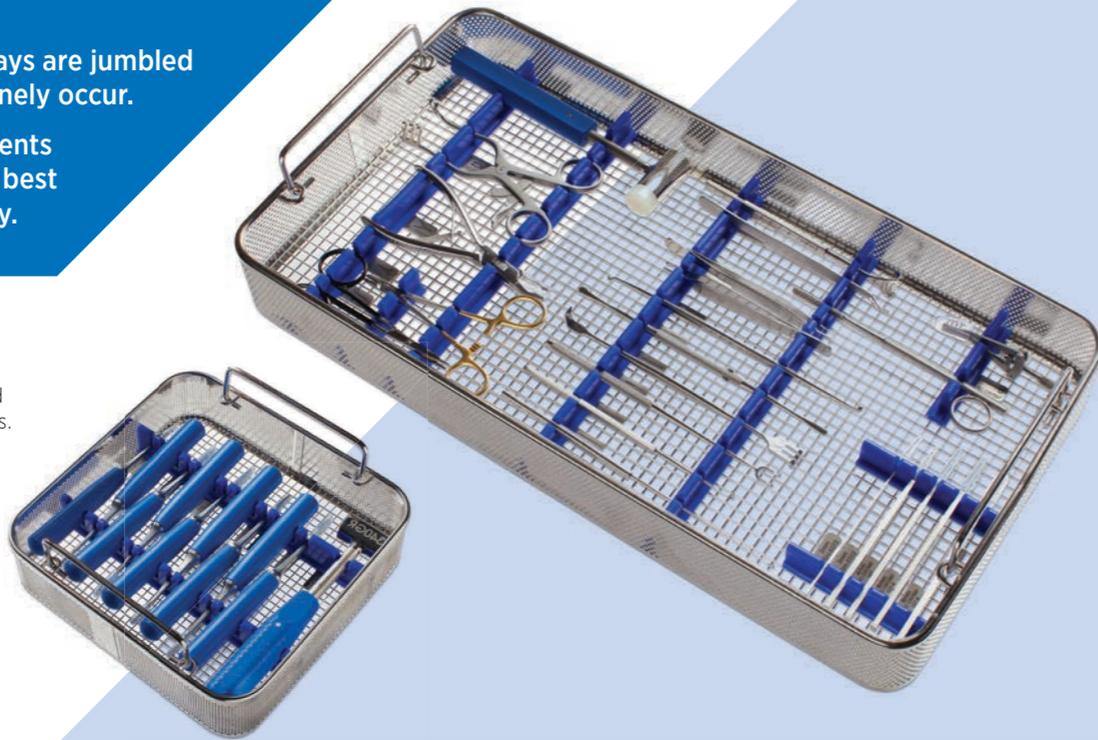
Traditional instrument trays are jumbled and shadowing can routinely occur.

Our trays ensure instruments are fixated to ensure the best possible cleaning efficacy.

Baskets themselves are usually wire mesh, which allows water and chemicals to reach the instruments.



Strips of silicone type material and supportive bars can be used to hold instruments in place and enable effective cleaning.



## Should We Really Be Reprocessing Orthopaedic Implants Such As Kirschner Wires and Arthrodesis Wires?

For peace of mind change to sterile packed.

Opting for sterile packed single use items such as kirschner wires ensures there is no chance for cross contamination prior to use.



## Instrument Design

Surgical Holdings identify instruments and create new solutions, where improvements for reprocessing may be necessary. Our range of rongeurs and Kerrison rongeurs can be taken apart to ensure they are cleaned efficiently.





Questions about the issues raised in this booklet?

Contact your Surgical Holdings representative



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