

There is still considerable potential for growth in the market for single-use surgical drapes and gowns in Europe, according to a new report prepared for industry body INDA – and the sustainable advantages they provide are only one of a number of drivers.

*Single-Use Nonwoven Surgical Drapes and Gowns in Europe* covers six key European countries – France, Germany, Italy, Spain, Sweden and the United Kingdom. It spans the years from 2000 to 2011 to provide an historical trend viewpoint.

“During the last decade, issues, such as patient care and comfort, hygiene, hospital-acquired infections along with the rising cost of health care, have impacted the nonwovens medical segment,” says INDA President Rory Holmes. “This report presents the insight and data to give companies an excellent view of the opportunity in Europe for single-use gowns and drapes moving forward.”

*Sustainable Nonwovens* spoke to author Helena Engqvist on her findings during writing the report.



## Ten questions for...

# Helena Engqvist,

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### What's the key message of your new report?

The potential for increasing the use of single-use nonwoven surgical drapes, gowns and clean air suits is being driven by changing demographics. European regulations and surgical procedures as well as population changes are leading to the development of more efficient and cost-effective surgeries. The aging population, especially in Europe, is leading to an increasing number of age-related surgeries further driving up the cost of healthcare.

Penetration rates are still relatively low in Europe, with large differences between countries.

### What do you see as the key advantages of single-use gowns and drapes?

Patient safety and infection prevention are on top of the agenda in every

operating room (OR). Single-use gowns and drapes help fulfill these important requirements because: Logistics are very simple – you buy, you use and you dispose of the contaminated fabrics.

For every single surgery, the surgical gowns and drapes are new, clean and unused every time and they provide confidence and security. Single-use drapes and gowns give hospitals the flexibility to choose the preferred draping for every procedure. Drapes and gowns can be chosen from a range of models to ensure that they provide the right level of protection at the right price. They are budget-friendly – no hidden costs like laundering, repairing, re-sterilization or re-packaging. The costs of single-use drapes and gowns are known for every procedure, every time.

### How widespread are such hospital-related infections?

Every tenth patient in the EU is impacted by them. According to the European Centre for Disease Prevention and Control, the direct costs for these infections is now €7 billion each year and €1.2 billion is attributable to surgical site infections. In orthopedic surgery, such an infection can prolong the hospital stay by two weeks, increasing health care costs by more than 300%

However, today, with people being resistant to antibiotics and all the new multi-resistant bugs emerging, single use surgical drapes, gowns and sterile barrier systems will not reduce the amount of infections, but they will help to minimise them.

### Isn't there still an argument for reusable, laundered products?

Reusable, laundered products will probably always be used. There are a number of

high-tech materials that are used in both drapes and gowns. These maintain a high quality from the material's point of view. But the laundry services have to guarantee that the quality requirements stated in regulation EN13795 are maintained after every laundry and by every use. It remains proven, however, that conventional textiles like cotton and cotton-polyester, are not bacterial barriers in dry and wet conditions.

### Why have these single-use products achieved higher penetration in the US more effectively than in Europe so far?

In the Nordic rim the penetration of single-use products has been similar to that of the US for many years due to some of the pioneers in this field. Development staff were early in working with surgical staff to define needs and requirements for single-use products. In the US they started much earlier with single use than in Europe. Furthermore, in the early days it might have been a hard sell to convince surgical staff to change to something unknown. Single-use products back then were not as comfortable as they are today. When looking in the rearview-mirror, the development has been enormous with many new and better materials, breathable, soft, drapeable, etc., as well as improved product designs. Another reason is that the acceptance of single-use products in many different areas – baby diapers, incontinence, personal care and industrial wipes and many more – has occurred in surgical products as well. Single-use is accepted today.

### How are regulations playing a part?

The regulations are now in place to force the switch to single-use products in Europe. The European Regulation EN13795 which bans conventional textiles has been in place for a few years now and is driving this change. In the US the focus is based much more on staff protection, while EN 13795 is more slanted towards patient safety.

### And what's the situation in Asia?

Asia is a totally different story just because of lack of money in certain regions. However, these countries will

grow much faster in future because they do not have to reinvent the wheel. Tradition has also probably contributed to many countries in Asia lagging behind, Japan excluded. But you can now find increasing use of single-use products in many countries in Asia, not least as a result of medical tourism.

### What are the key fibres employed in single use medical products and their respective advantages?

The key fibres – or you may want to say polymers – are polypropylene, polyester, polyethylene, viscose and cellulose – all dependent on production process and end-use. Traditional cotton based textiles do not meet the essential requirements of EN 13795, mainly because of the fibre's low resistance to microbial penetration in wet circumstances, as well as linting problems. But cotton is a good absorbent fibre and has its place in many other applications, for example in wound care. The favoured technologies for drapes and gowns are various compositions of spunlaid/meltblown nonwoven, hydroentangled as well as chemically bonded, and laminates.

### What about their disposal?

Single-use products must be treated as contaminated goods and can therefore not be placed in landfills, but must be incinerated, generating energy. However, we have to go back to basics, which means improving hospital and OR cleaning despite of this. The new MDD (Medical Device Directive) will be much tougher.

### What do you predict for the changes in this market in the next few years?

I would predict that the penetration will certainly increase in Europe. The need to reduce health care-associated infections



is definitely high on the agenda of the providers. Single use is one stepping-stone to improving hygiene, just because products are only used once and they are always new and always clean. Regulations are going to continue to support changes in this direction. Already today and even more so in the future, there will certainly be increasing pressure to find treatments that are less costly but with equal or better health effects. Since labour costs will increase more than material over time, single-use products will become an increasingly competitive solution. **SN** •

Helena Engqvist is an experienced industry veteran to the medical and healthcare nonwovens segment. Her core competencies include nonwovens, hygiene and healthcare products, consumer insight and business analysis, R&D and technology. Her career spans more than 30 years in management positions at Novartis in Switzerland, Johnson & Johnson in Germany and the US and SCA in Sweden. Further details: [www.engqvistconsulting.com](http://www.engqvistconsulting.com) or [www.inda.org](http://www.inda.org)