CleanMed Europe 2020

Development of Sustainable Medical Textiles

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Content

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Background

- Corono crisis – a supply crisis
- Consumption – est. 300 tons single use textiles/year in Central Denmark Region
- Dependency on unreliable global supply chains

Potentials

- Local production of multi-use protective gown?
- Development of Tech-pack?
- Compititive Business Case?

Goals for Prototype

- Production of woven multi-use protective gown of recycled polyester
- All rights to Tech-pack
- Compititive Business Case compared to single-use
- Identification of relevant Test protocol and standards
- Positive clinical test
- Reduced environmental Impact
- Effecient laundry and logistics – 100 x wash

Prototype 0.7

- Freedom of movement
- High level of security
- Assymetrical closure
- Usable inside-out
- Tagged
- Antistatic
- Breathable
- Recycled Polyester
- Level II Gown

Challenges I

- Water repellent on protective gowns based on flour-carbon does not last more than 10 times when testing against EN 13795.
- But neither does the repellant on ordinary uniforms – despite certification!
- What happens to the 'dissapearing' chemicals?
- Flour-carbon is part of very persistent and bioaccumaltive PFAS group.
- Sub-group PFBA is under suspicion for accumulation in lungs through inhalation of textile dust and seems to be corellated with serious Covid-19 cases*

* https://www.sdu.dk/da/om_sdu/fakulteterne/sundhedsvidenskab/nyt_sund/giftige_stoffer_ophobet_i_lungerne_kan_forvaerre_covid_19

Challenges II

- Testing laundry technology – with supplier
- Change of laundry chemicals supplier
- Working with less ‘dangerous’ chemicals (a.o. 2-phenoxyethanol)
- What about chemicals on single-use textiles send to incineration?

Any good ideas?

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