Hospital mattresses lifespan and comfort

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Conflict of interest

- No conflict of interest
- Grant from NFSO-NSF
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Background

- Patients at risk of pressure ulcers should have a better mattress than a standard hospital mattress (EPUAP/NPIAP/PPPIA, 2019; McInnes et al., 2015, 2018)
- No evidence to conclude type of mattress (McInnes et al., 2015, 2018)
- Wear and tear of mattresses

Purpose

- Investigate a sample of one hospital's standard and pressure redistribution mattresses
- Interface pressure
- · Comfort and mobility level



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Methods

- Descriptive comparative study
- One hospital
- Approved by the hospital's privacy protection officer • 20 healthy volunteers, written informed consent
- 10 minutes in flat supine position on five different mattresses in random order(three standard and two viscoelastic with a varity of years in use)

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 Variables/measures Participants characteristics (age, sex, height/weight, temp, blood pressure, oxygen sat)

- Room temp
- Interface pressure (mmHg)
- Sensing area (cm²)
- · Comfort and mobility level

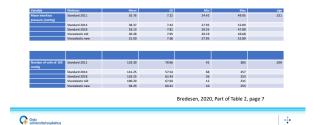
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Results

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- Age range 25-64
- Weight range 55-113 kg
- Height range 161-187 cm
- BMI range 19.1 to 36.2



Limitations One hospital Comfort 75 % good/very good for both viscoelastic mattresses • Small sample, healthy volunteers Lowest for the standard mattress from 2011 • One mattress from each year Supine position only Ability to move with ease · No measure for bottoming out, hand compression, Greatest for all standard mattresses envelopment/immersion or microclimate Other body morhoplogy measurements could have been included · Function of mattresses differed according to weight alone and BMI Oslo universitetssykehus G Oslo universitetssykehus 1 |

Conclusion

• Older compact foam mattresses were less comfortable and had higher interface pressure compared to a new type of standard mattress and viscoelastic foam mattresses

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Take home message

- Risikovurdering
- Type madrass
- Obs vekt
- Sjekk kvalitet
 - Rifter, hull
 - Antall år i bruk
- Stillingsendring uansett type madrass • Individuelt regime

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Referanser

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