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Using QFD as a method to develop functional medical products for children with cancer
Background

• Local charity – real world problem
• Cancer in childhood is rare
• Intensive chemotherapy – central venous catheters (lines)
• Tunneled under skin, external opening on chest

Problem

• Risk of displacement
• Accidental complete removal
• Children may wish to conceal them
• Discomfort during sleep
• Lines may dangle

Challenge
Harness to improve well-being of children with cancer
Research Plan

- Interdisciplinary team Dr J Power, Prof D Leaper, J Harris
- Local cancer charity Little Heroes
- Student researcher (teaching/research nexus)

Philosophical Approach - constructive interpretivism

- Balance – academic enquiry and practical application
- Resolve epistemological and methodological differences
- Timeframe – interpretivist approach was adopted

Data collection techniques

- Market research / product research / standards
- Focus group / interviewed medical personnel
- Product analysis
- Synthesized the findings using a QFD
A method of translating customer needs into appropriate technical requirements

Parents / carers
- Location of harness (comfort)
- Design function (functional)
- Health and Safety (various)
- Style line (aesthetics)

Comfort wear trial – current products

Priority; Comfort (fit), function, H&S, styleline
“Wigglebag”

Harness to improve well-being of children with cancer

- Ergonomically designed
- Comfort / functionality / dignity
- Stylish
- Antibacterial
Any Questions?

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