MEDTECH & PHARMA PLATFORM

From Hospital to Self-Care: How Patient Needs Can Shape Subcutaneous Drug Delivery

Dr. Tobias Theiler

Head of Science, Human Factors, and Medical Affairs
at Ypsomed AG

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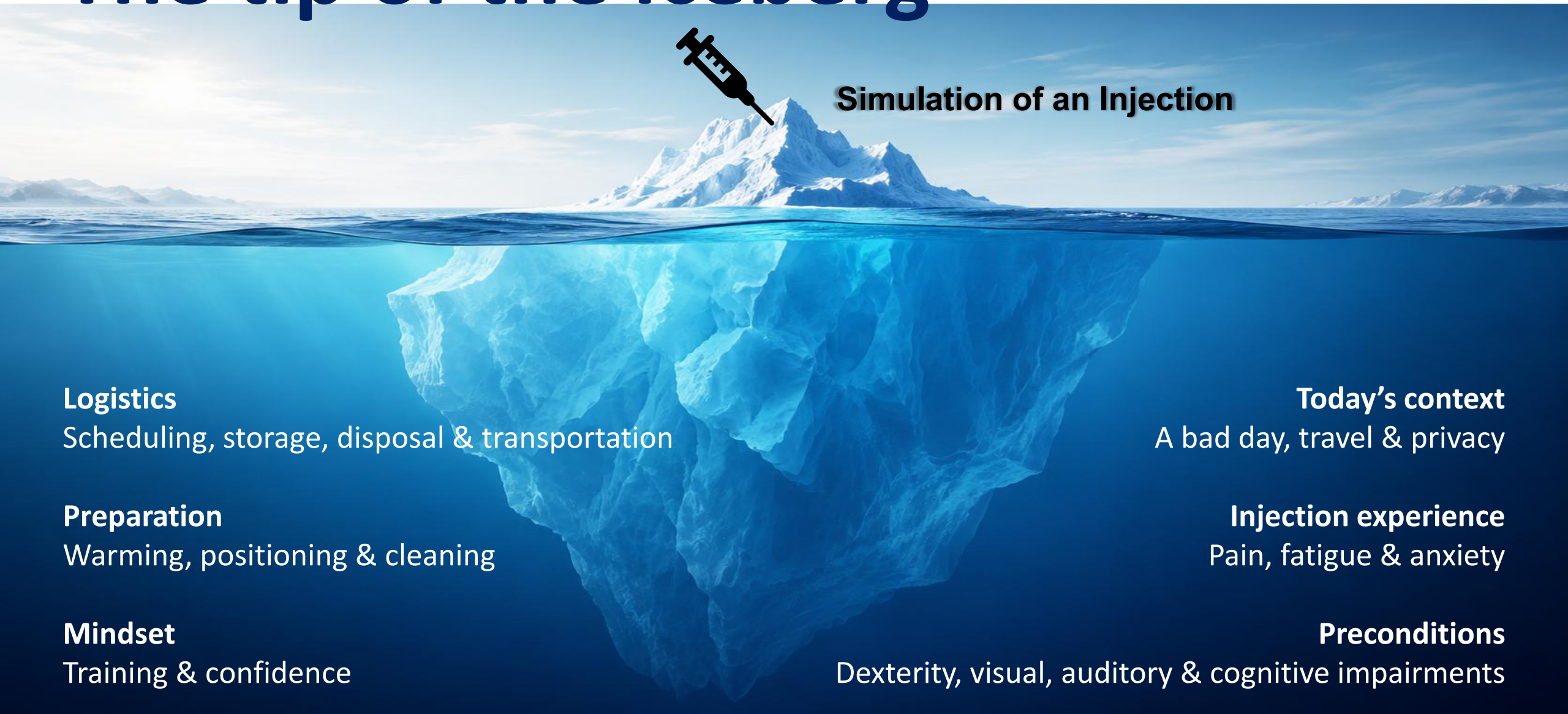
The tip of the iceberg



Logistics
Scheduling, storage, disposal & transportation

Preparation
Warming, positioning & cleaning

Mindset
Training & confidence

Today's context
A bad day, travel & privacy

Injection experience
Pain, fatigue & anxiety

Preconditions
Dexterity, visual, auditory & cognitive impairments

Challenges

New device design:
- Larger syringe and mechanism
- Increased device size and weight

Increased usability challenge

Longer injection:
- Physical endurance, dexterity
- Uncertainty

At large volumes, well-established Hand-Held injections become…
… a fine line to walk

Acceptability
Acceptability Optimum
Dexterity Limit
Pain Limit
Injection Rate

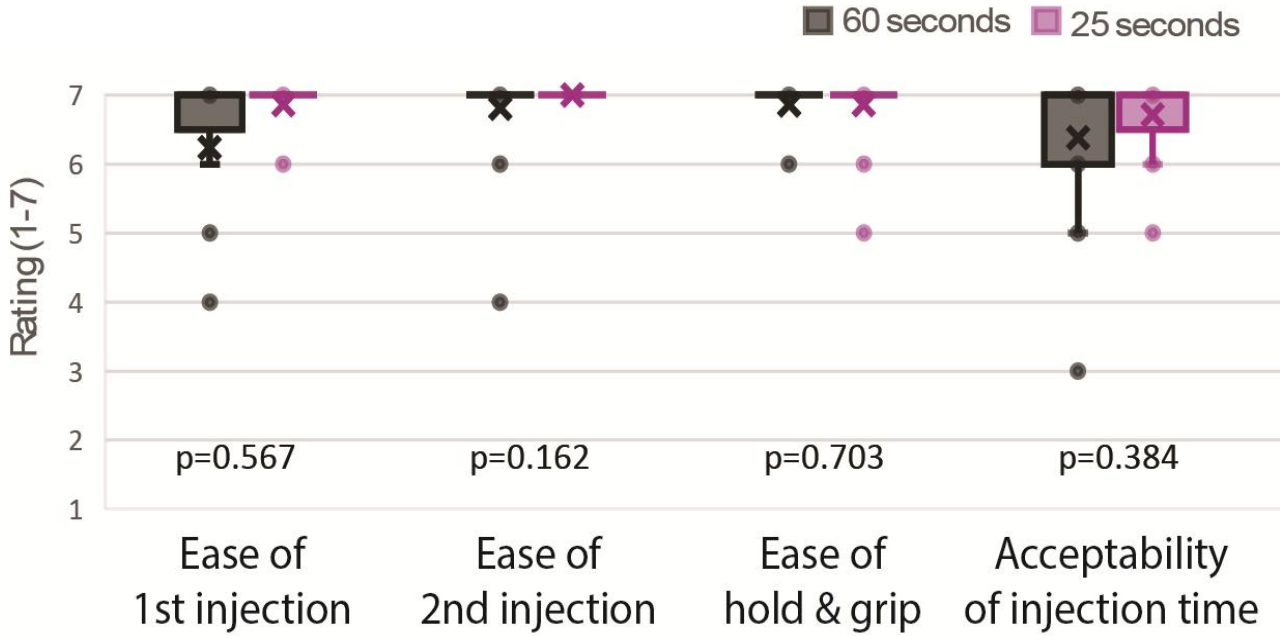
Device Evolution

Developed over 4 years along 4 formative studies

- Dexterity challenged users early
- Ergonomics, continuous multimodal feedback were shaped along the way

Device Evolution

From:
"This is only acceptable if
I have to do fewer injections"



To:
This is highly acceptable – 25s or 60s duration makes no significant difference

Conclusions

- Looking below the “tip of the iceberg” revealed design needs that clearly improved usability and acceptance.
- **Driver 1:** Involve users early, test early: while design decisions can still change.
- **Driver 2:** Identify the most challenged users and design and test with them.
- **Driver 3:** Patient-centred design is iterative: 4 years, 4 studies, and repeated design refinement.
- **Open question:** When is enough, enough? Have we found the relevant needs? Can one device platform truly serve everyone?

- In general:
  Self-injection aligns well with patient needs for therapy that is Safe, Easy, and Available.
- In particular:
  Patient centricity requires considering the full treatment context and end-to-end patient journey.