YDS SmartPilot™ YpsoMate

Go for smart guidance.

swissmade

Reusable add-on transforms YpsoMate® into a fully connected smart product system.

- Bluetooth®-based wireless tracking of injection date, time and success
- Advanced patient guidance throughout the injection process
- NFC-based identification of combination product label to increase patient safety
- YpsoMate® autoinjector compatibility with SmartPilot™ without further changes
- No need to charge SmartPilot™ during its entire lifetime

More confidence. More success. With Ypsomed Delivery Systems.

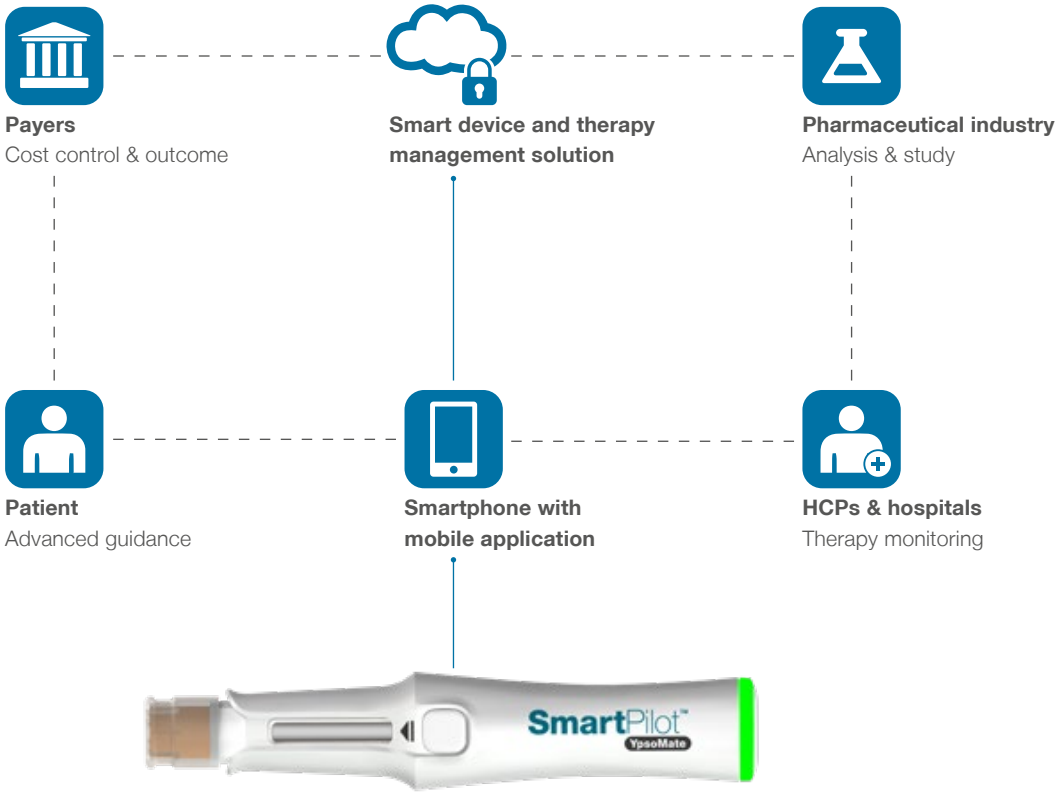
YPSOMED SELFCARE SOLUTIONS

SmartPilot™ to improve therapy outcomes

Both market and technology are driving smart device adoption

Technology push

- Compact and low-cost processing power and data storage
- Sensor miniaturisation and energy efficiency
- Network benefits of ubiquitous wireless connectivity



Smart devices to improve adherence & therapy outcomes

Market pull

- Trend towards outcome-based payments
- Need to analyse real-world drug effectiveness during clinical trials and commercial use
- Improving patient support and convenience

SmartPilot™ for YpsoMate® enables advanced adherence monitoring by transforming the proven YpsoMate® autoinjector into a fully connected smart product system. It supports the seamless provision of therapy-relevant data to patients, physicians and other healthcare stakeholders.

YDS SmartPilot™ YpsoMate

Towards advanced adherence monitoring
Transforming YpsoMate® into a connected smart system

SmartPilot™ provides advanced adherence tracking without requiring any physical modification to the YpsoMate® autoinjector. It enables the use of advanced adherence monitoring services during clinical trials and as part of life cycle management following commercial launch.

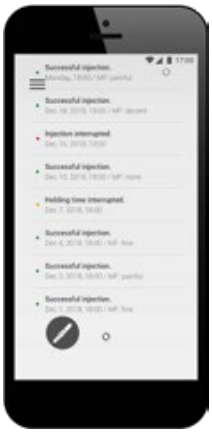
YpsoMate® suitable for standard
1 ml long and 2.25 ml pre-filled syringes

Transformation without change

Fully connected smart product system including
YpsoMate®, SmartPilot™ and mobile application

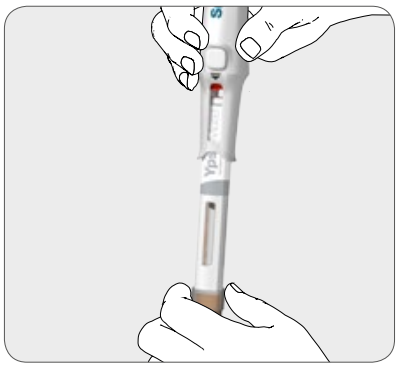
SmartPilot™ tracks usage of YpsoMate® autoinjector
Capturing injection result including potential use errors

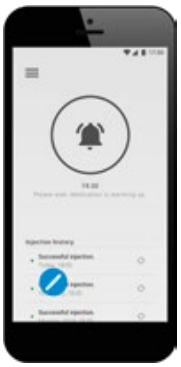
- Real-time tracking of injection events
  - Drug identification (incl. batch number, expiry date etc.)
  - Injection date and time
  - Successful injection
  - Injection interrupted
  - Holding time deviation
- Bluetooth®-based wireless transmission of injection events to mobile application
- Injection events (date, time and result) are recorded on SmartPilot™ local memory for later read-out
- Compatible with third-party therapy management app



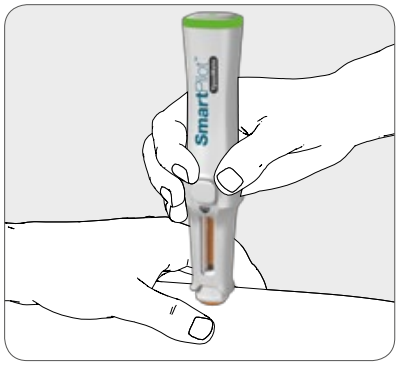
Step-by-step user guidance to avoid handling errors
Advanced visual and audible feedback throughout the injection process

Step 1
Couple YpsoMate® autoinjector with SmartPilot™ and get information on drug identity, batch number and expiry date

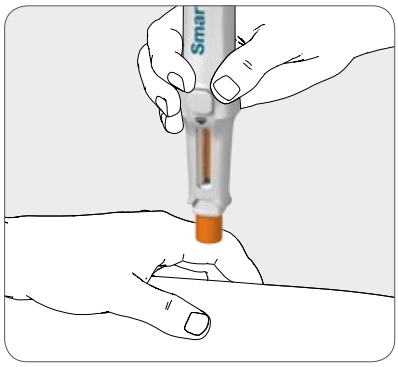


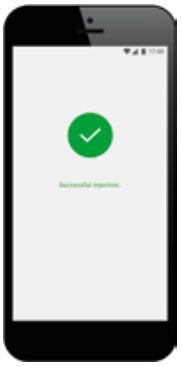


Step 2
Perform the injection and automatically transfer data to mobile application

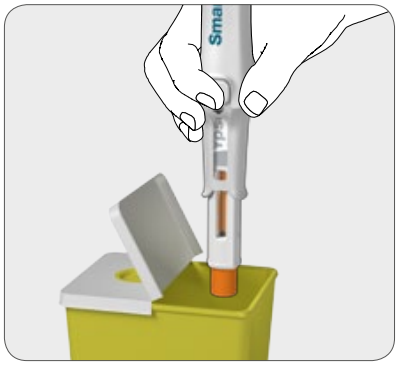


Step 3
Remove from skin after completion of injection including holding time





Step 4
Discard YpsoMate®, save SmartPilot™ for future use, and rate perceived experience when performing self-injection

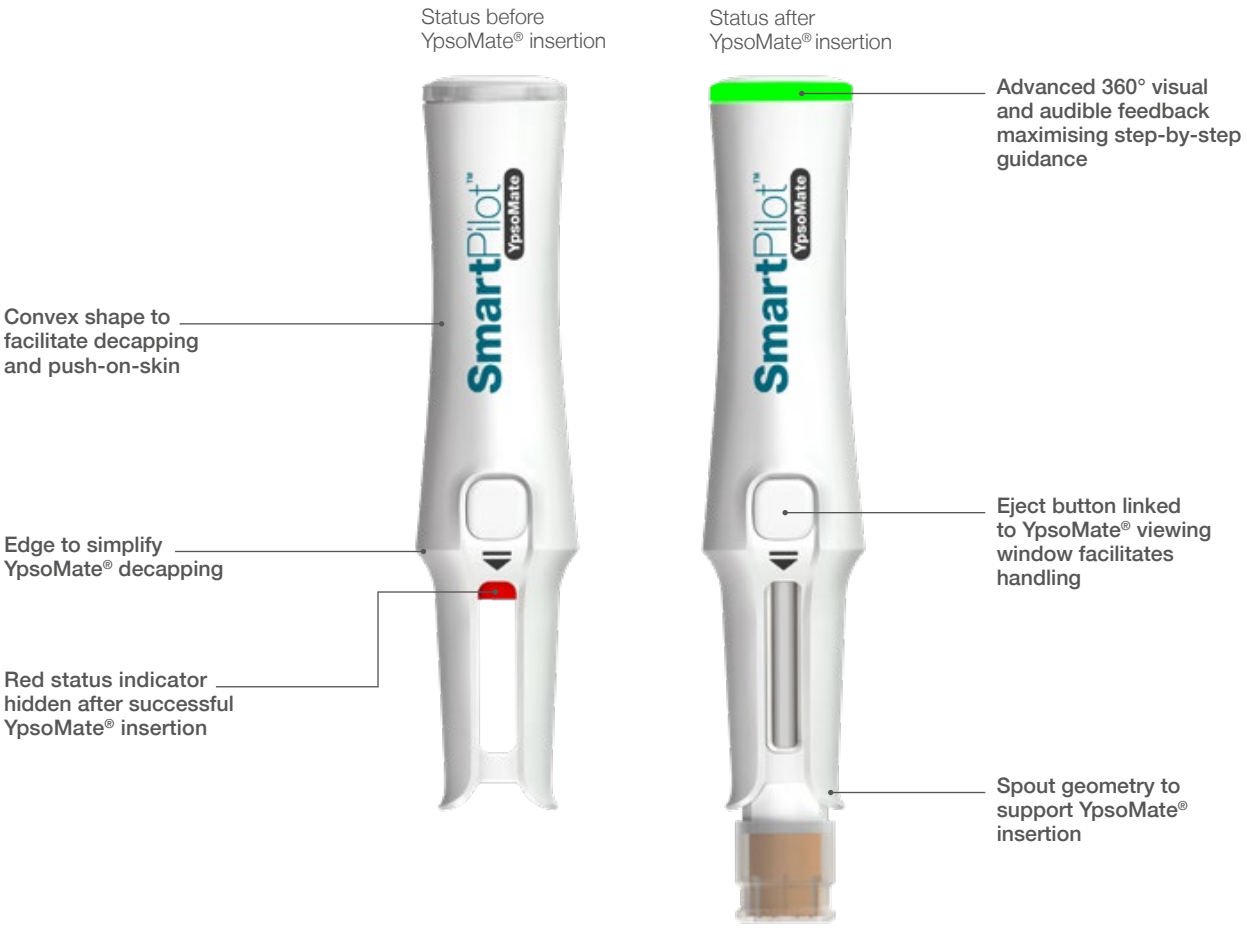


These handling instructions are for marketing purposes only and do not replace the instruction for use of the product.

YDS SmartPilot™ YpsoMate

Industrial design provides further patient guidance

SmartPilot™ for YpsoMate® design attributes support each use step



Patient guidance even in absence of mobile application

Clear communication of YpsoMate® use status

Both visual and audible feedback are implemented to minimise use errors e.g. holding time. SmartPilot™ for YpsoMate® guides patients throughout the injection process including feedback once the drug has reached room temperature.


Drug is warming up


Ready to use


Injection interrupted


Holding time deviation

Adding a new dimension to patient safety
NFC-based authentication of the combination product

SmartPilot™ recognises smart Near Field Communication (NFC)-based labels on YpsoMate® notifying patients of the correct dose strength and checking that the drug has not expired.

SmartPilot™ for YpsoMate®

NFC-based identification

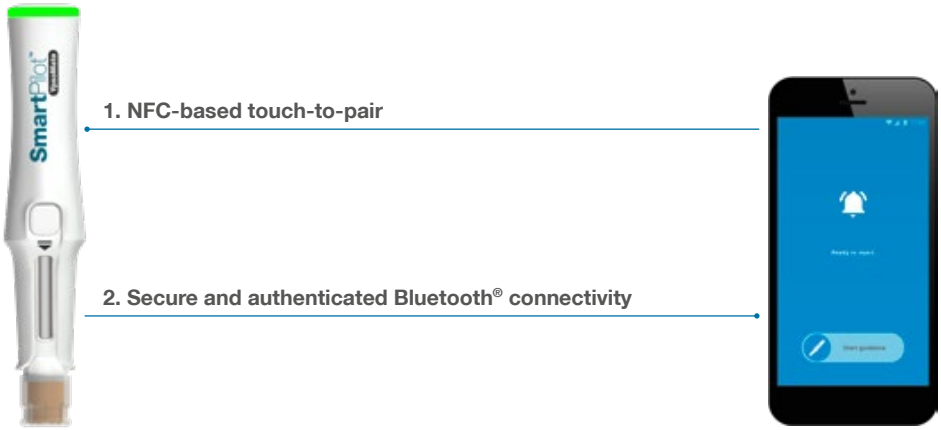
YpsoMate® autoinjector

Smart NFC label
in collaboration with
schreiner MediPharm

- **Correct product:** Ensure that the drug product is not a counterfeit
- **Simplify expiry management:** Relate real-time with the expiry date
- **Check usage:** Ensure that correct YpsoMate® is used e.g. dosing intervals and dose strength
- **Support recalls:** Manage product recalls through cloud-based device serialisation

Touch-to-pair further improves ease-of-use
Facilitating intuitive and secure Bluetooth® pairing

NFC-based touch-to-pair provides a more convenient and secure means to establish Bluetooth® connectivity. An NFC-enabled smartphone is placed close to SmartPilot™. Credentials are automatically exchanged via NFC, with the close proximity preventing other smartphones from pairing with SmartPilot™.



YDS SmartPilot™ YpsoMate

Introducing a mature smart device platform
Innovation targeted product attributes

Sensor concept
Sensor selected to optimise interaction with YpsoMate® mechanics

Signal processing algorithm
Advanced algorithm robustly detects injection events

NFC-based drug product identification
Authentication at point-of-use to further increase patient safety

Secure mechanical attachment
Spring-assisted system to simplify the patient handling experience

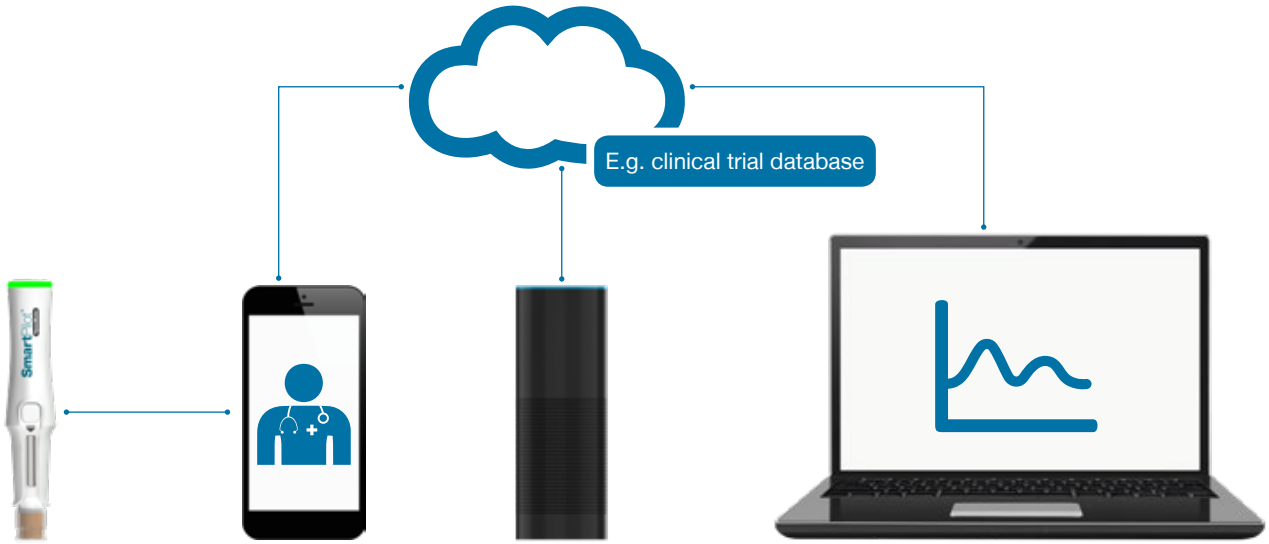
User-centred industrial design
Optimised following human factors and eye tracking studies

Feedback patterns
Advanced visual and audible feedback to maximise patient guidance

Life-time energy concept
Eliminating the need to charge SmartPilot™ for YpsoMate® during its entire lifetime

Enabling integration within broader digital health ecosystems
Focus on ease-of-integration via web-based interfaces

YDS SmartServices™ embed SmartPilot™ for YpsoMate® in a broader digital ecosystem. The digital services provide a turnkey solution to simplify adherence monitoring and provide secure smart device integration. SmartPilot™ for YpsoMate® may be integrated into clinical trials and commercial patient monitoring programs.



YDS Deliverysystems

More **confidence.**
More **success.**
With **Ypsomed Delivery Systems.**

Pen systems

Autoinjector systems

Patch injector systems

Smart services

Ypsomed Delivery Systems provides a complete range of drug delivery products and services to biopharmaceutical companies. We offer everything from development and design to manufacturing and packaging, giving patients and customers more confidence and leading to more market success.

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