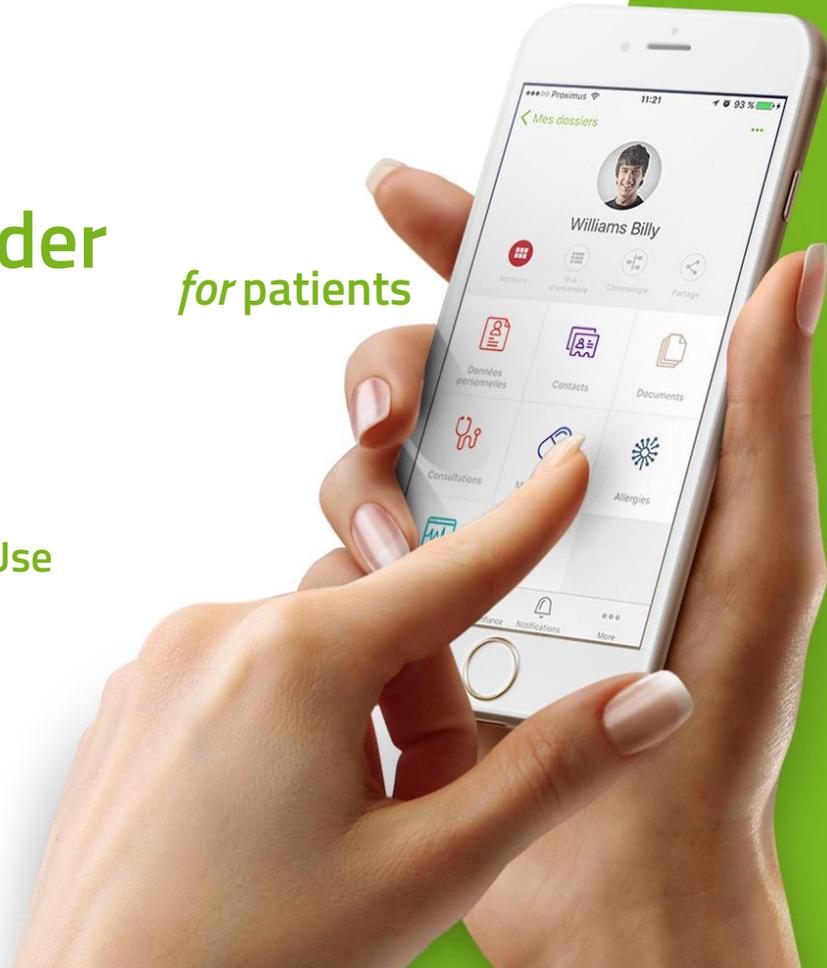




Who is the best provider of drug information?

2023 EHTEL Symposium
Medicines Data Integration For Clinical Use

— Vincent Keunen, CEO
vincent.keunen@andaman7.com
2023-11-29



for patients

by patients

Table of contents

- Introduction to Andaman7
 - PHR by patients for patients
- Drug management
 - Who does what?
 - Standards: exchange formats and codification
 - Current limitations
 - The Andaman7 bottom up approach
 - Interesting next steps

Speaker presentation



CEO & founder Andaman7

CIO of the year 2016

TED Talk on YouTube



Distributed Medical Record for prevention work

- 1 million patients - 400 doctors-nurses



Secure medical messaging

- 90% of Belgian family doctors, hospitals & labs



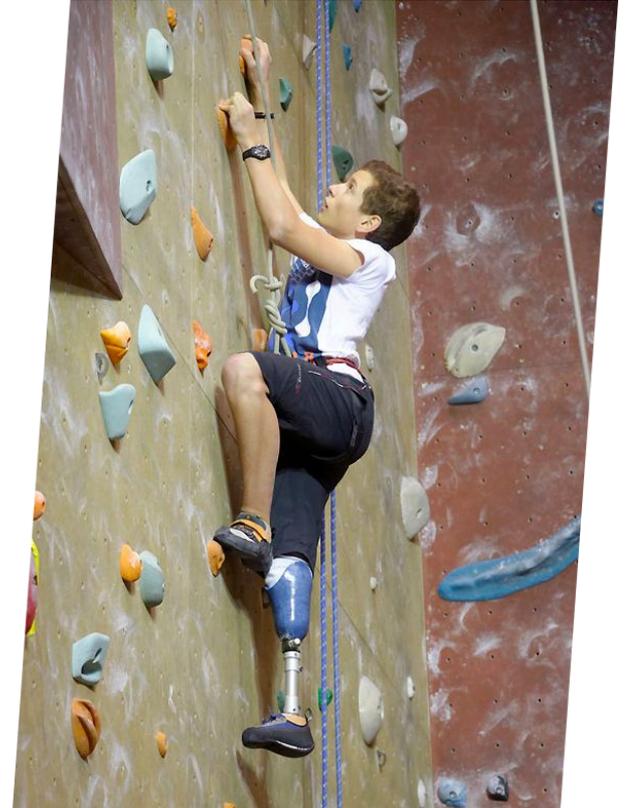
A personal story

Vincent Keunen

- Leukemia at 43
- Gleevec

His son Pierre

- Bone cancer at 10
- 1 year of chemo, radiation, bone marrow transplant, leg amputation



Problems



1. Patients

Targeted treatments
Scattered health data



2. Care 3. R&D

Access to patients:
Continuity of care
Trials, DCT, RWE, PRO
& more



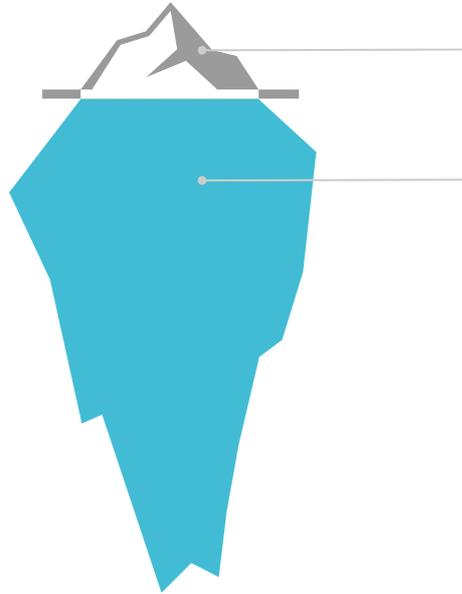
Can we do all 3?

- › Empowering Patients
- › Care providers: Managing diseases
- › Research: Measuring outcomes

One platform - All conditions



The Andaman7 solution



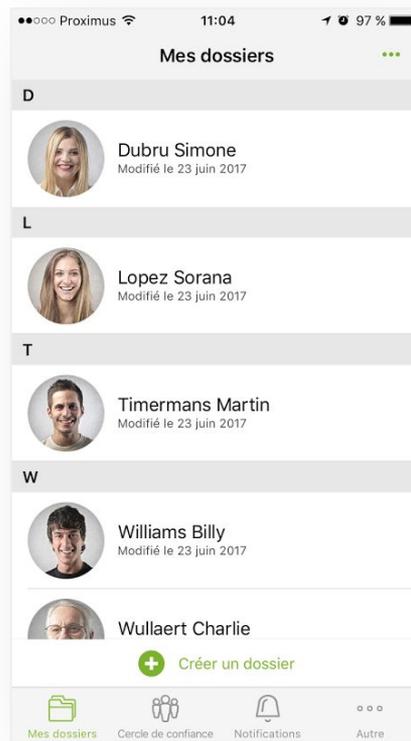
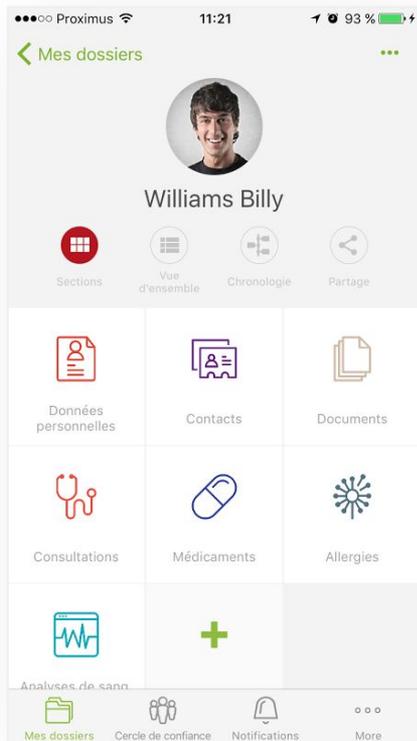
Patient facing mobile app - PHR and more

HIP - Health Intermediation Platform

- High security & privacy
 - Peer-to-peer, no cloud storage
 - Security by design, privacy by default
 - GDPR
- High interoperability
 - Open API & connectors
 - Liquid data model



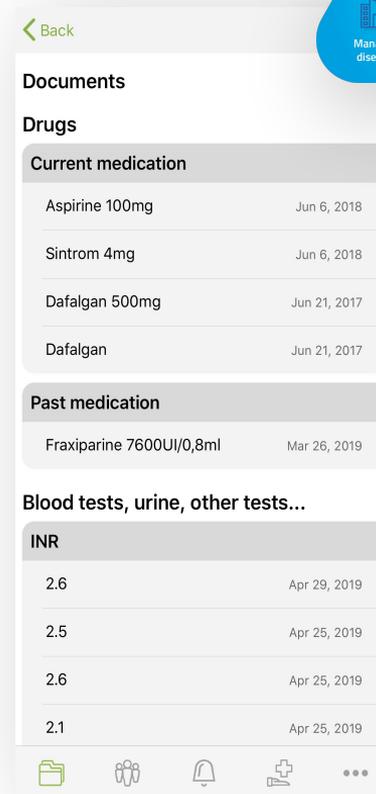
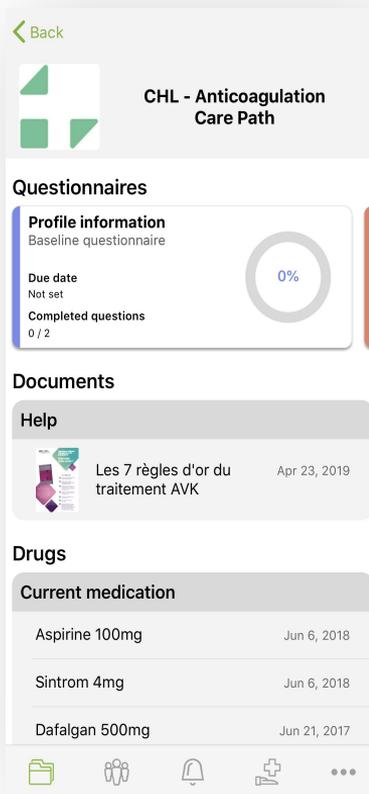
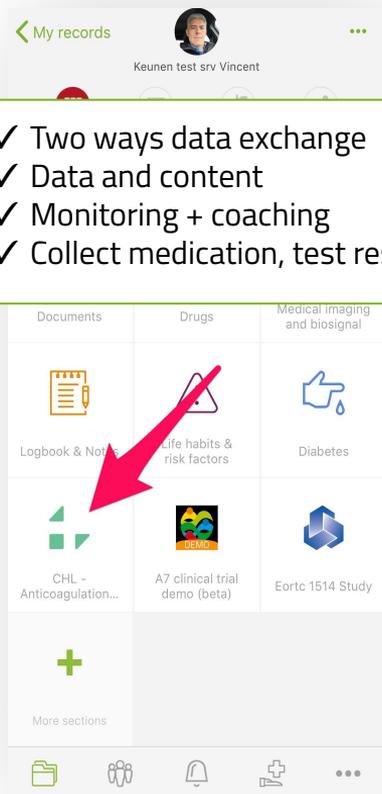
Mobile PHR as foundation... & more



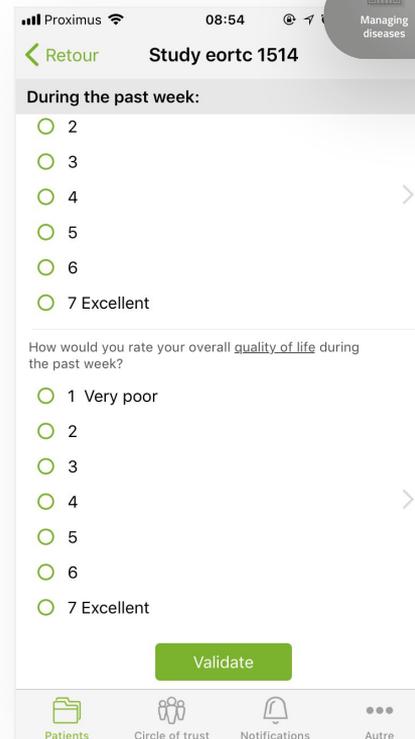
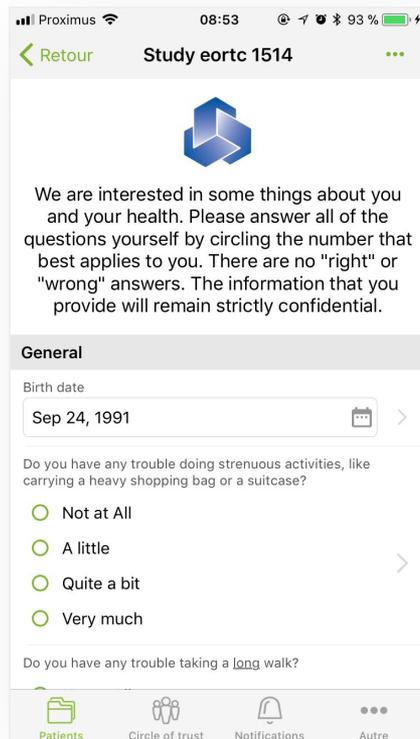
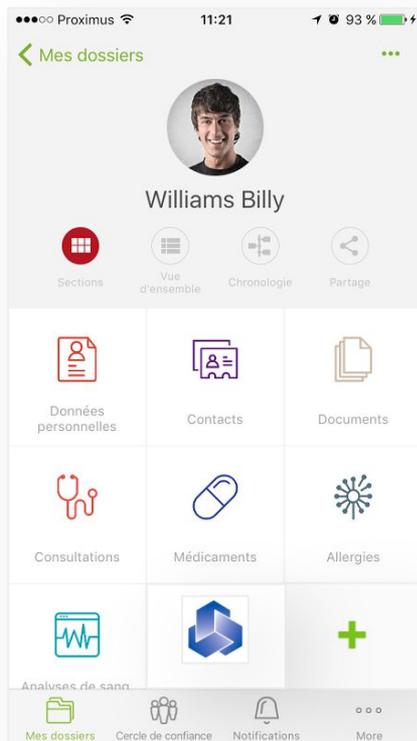
More? Care coordination



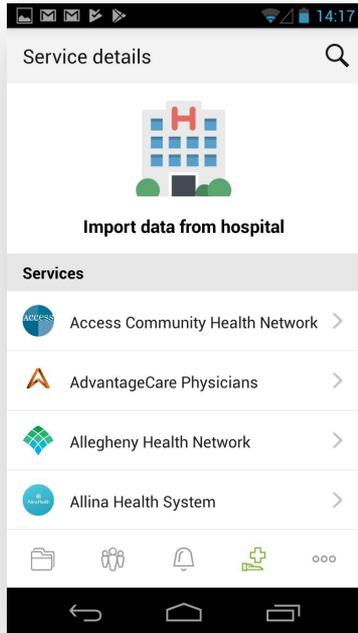
- ✓ Two ways data exchange
- ✓ Data and content
- ✓ Monitoring + coaching
- ✓ Collect medication, test results...



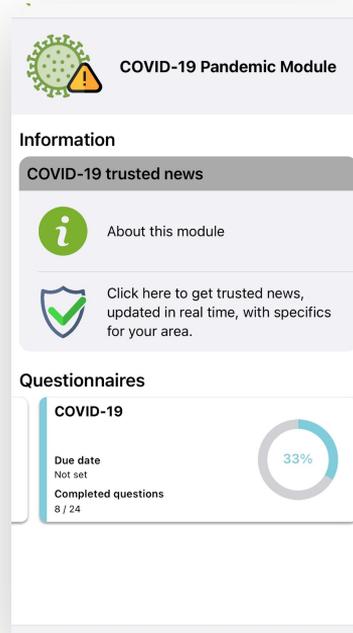
More? Clinical trials, PRO, RWE



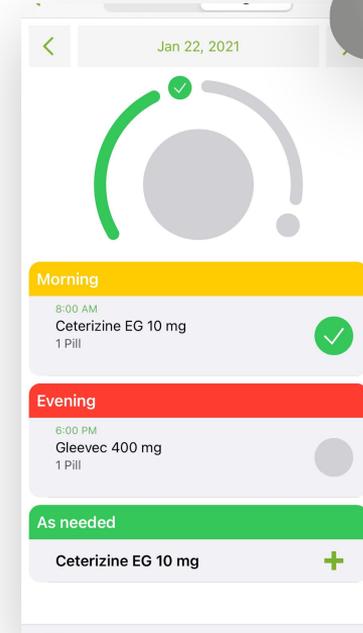
More? Patient empowerment



Data access



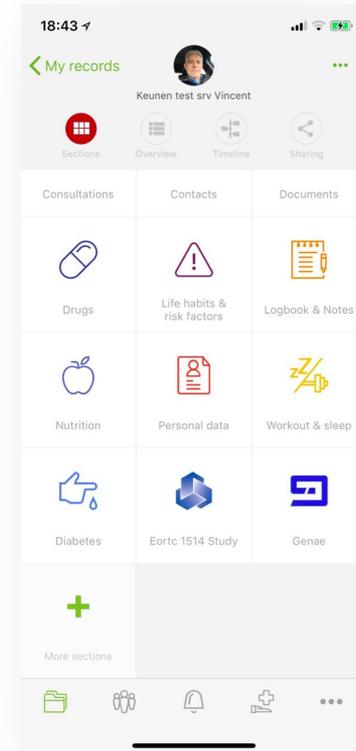
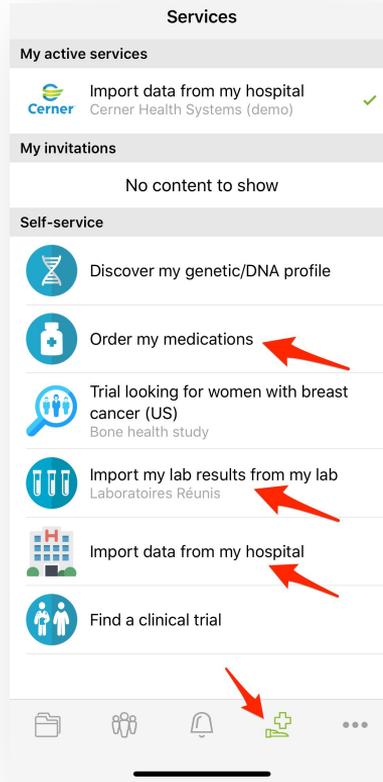
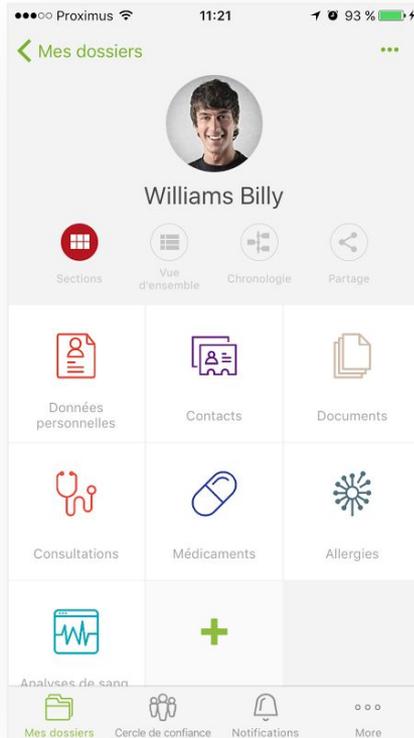
Education



Medication adherence



Patient services open to third parties



Global Reach

Available in the
20 most spoken
languages on earth

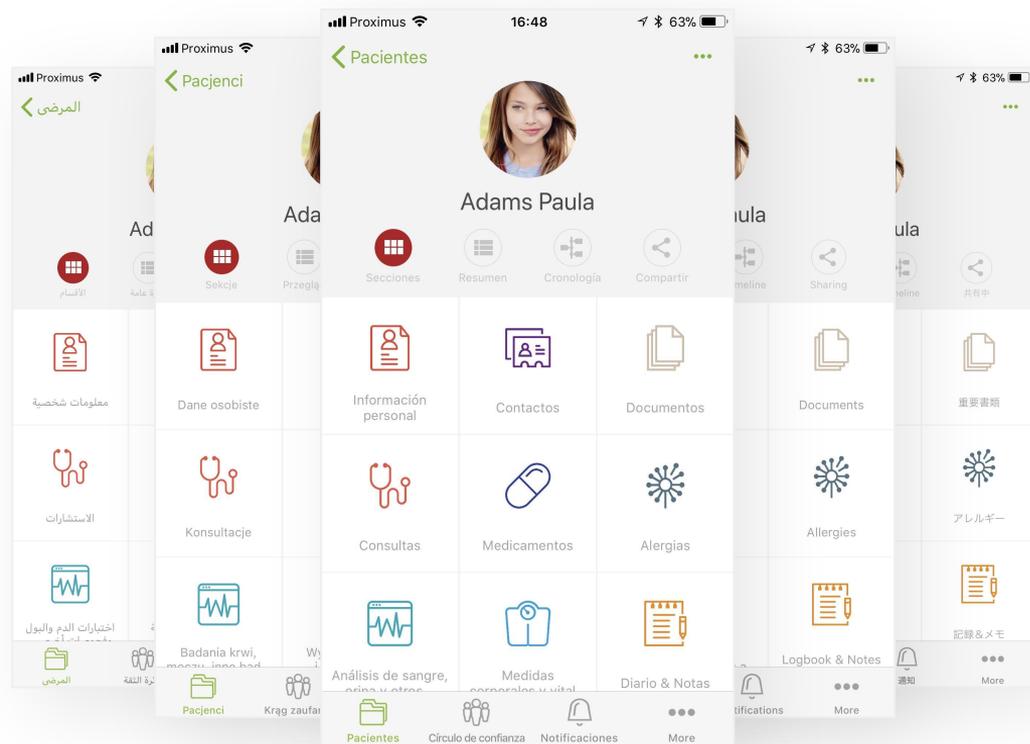


Table of contents

- Introduction to Andaman7
 - PHR by patients for patients
- Drug management
 - Who does what?
 - Standards: exchange formats and codification
 - Current limitations
 - The Andaman7 bottom up approach
 - Interesting next steps

Who does what

- **Patient** describes symptoms
- Doctor anamnesis, diagnostic, prescription
- **Patient** decides to follow, goes to pharmacy
- Pharmacist delivers, with recommendations
- **Patient** takes drug, registers usage

- **Patient** sees several doctors, contributes to research...

Standards: exchange formats and codification

- Exchange formats
 - FHIR, OMOP (HL7...)
- Codification systems
 - (Invoicing)
 - Many concepts: SNOMED
 - Lab results: LOINC
 - Drugs: NDC, DIN, ATC, RxNorm, IDMP (ISO/Unicom)

Current limitations (some...)

- Hospital EHRs = 30% incomplete / obsolete / incorrect !
 - Patients can fix many errors... when access to EHR
- Best Possible Medication History (BPMH) - WHO
 - Prescription, OTC, and complementary
 - OK on Andaman7: download from hospital, enter data
 - BUT NOK: sending it back to the hospital, not ready
- Evolving standards
 - FHIR v2, v3, v4, v5 + changes to drug resources

MedicationKnowledge, Medication, MedicationStatement, Substance, Ingredient, CodeableConcept, MedicationRequest, MedicationDispense, MedicationAdministration, SubstanceDefinition, SubstanceSpecification, SubstanceInstance

Current limitations

Medication reconciliation has been recognized by several international patient safety organizations, such as The Joint Commission (TJC), Institute for Healthcare Improvement (IHI) and the World Health Organization (WHO) as an **important step** for achieving better medication **safety** and optimizing transitions of care.^{1,2}

1. Greenwald JL, Halasyamani L, Greene J, et al. Making inpatient medication reconciliation patient centered, clinically relevant and implementable: A consensus statement on key principles and necessary first steps. *J Hosp Med.* 2010;5(8):477-485. doi:10.1002/jhm.849
2. Almanasreh E, Moles R, Chen TF. The medication reconciliation process and classification of discrepancies: a systematic review. *Br J Clin Pharmacol.* 2016;82(3):645-658. doi:10.1111/bcp.13017

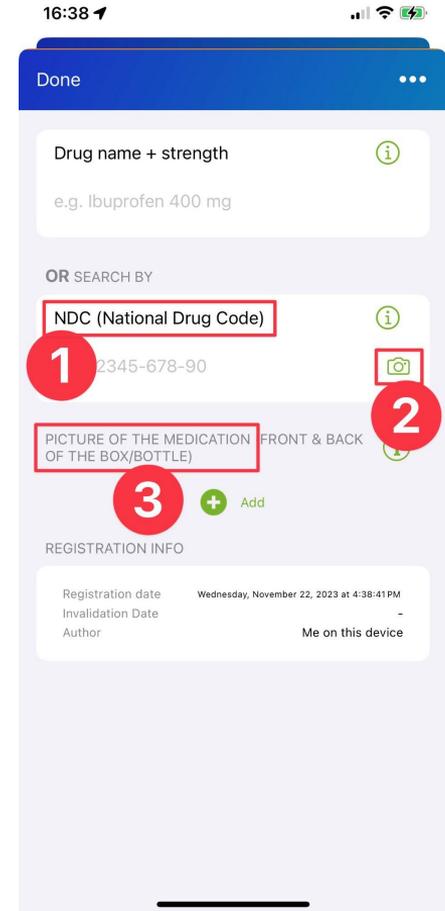
The Andaman7 bottom up approach

- The patient in control
- The patient's smartphone IS the ONLY storage
- The patient can enter ANY data (+ traceability)
- The patient can get a copy of all his health data
 - From hospitals, GP, labs,...
 - Data ownership is a non issue; data access is → GDPR ok
- The patient can share his data with a CoT - Circle of Trust
- The patient can contribute to clinical research

1. Unique NDC code
2. Scan NDC code + online DB lookup
3. Box picture



- Very precise drug information
- Also for OTC !!
- Useful for care & clinical trials



Interesting next steps

When institutions will agree to cooperate...

- Return drug list to hospital, GP, pharmacist (interactions...)
- Active ingredients total dose from several brands
 - Ex: OTC drugs & paracetamol / liver damage

- Gen AI and Andaman7:
 - Explain doctors texts, summarize EHR, structure/codify data

Conclusion

- It's time to break the Berlin wall...
 - Patients need their data
 - They have the right
 - It can improve care, reduce costs, speed things up
 - It can improve research, reduce costs, speed things up

Andaman7: patient inclusive approach



Patients of the future.

Work for them?

Work WITH them!



b2b@andaman7.com
www.andaman7.com

