

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



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









< >

400

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



HIP - Health Intermediation Platform

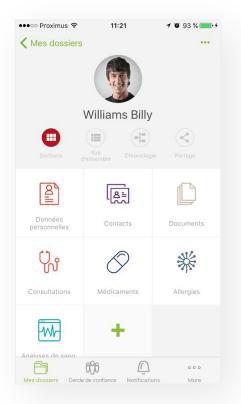
- High security & privacy Peer-to peer, no cloud storage Security by design, privacy by default GDPR
- > High interoperability

Open API & connectors Liquid data model



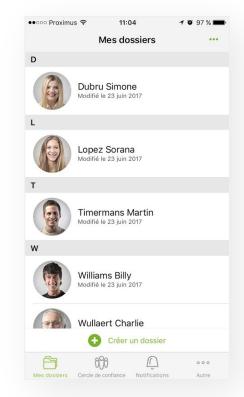


Mobile PHR as foundation... & more



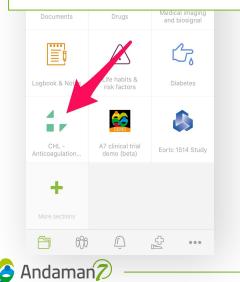
Andaman 🖊





More? Care coordination



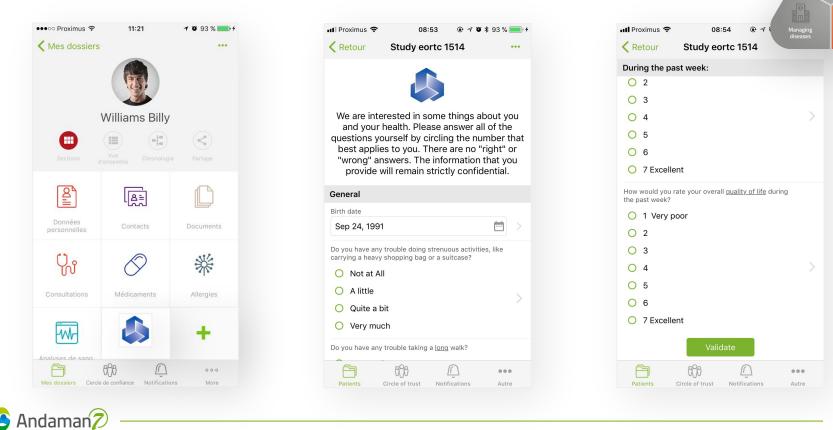


<	Back							
	CHL - Anticoagulation Care Path				I			
Questionnaires								
	Profile information Baseline questionnaire							
	Due date 0% Not set							
	Completed 0 / 2	questions						
Documents								
Help								
		Les 7 règ traitemer	lles d'or du ht AVK	Apr 23, :	2019			
Di	rugs							
Current medication								
	Aspirine	100mg		Jun 6, 3	2018			
	Sintrom	4mg		Jun 6, 1	2018			
	Dafalgan 500mg			Jun 21, 2017				
	ð	iĵi	Ũ	6 M	•••			

					R				
					powering patients				
K Back				Managing diseases	Measuring outcomes				
Documen	ts			uiseases	outcomes				
Drugs									
Current m	nedicatio	n							
Aspirine '	100mg		Jun 6, 201	18					
Sintrom 4	1mg		Jun 6, 201	18					
Dafalgan	500mg		Jun 21, 20	17					
Dafalgan			Jun 21, 20	17					
Past medi	cation								
Fraxipariı	ne 7600UI	/0,8ml	Mar 26, 20	19					
Blood tests, urine, other tests									
INR	INR								
2.6			Apr 29, 201	19					
2.5			Apr 25, 20	19					
2.6			Apr 25, 201	19					
2.1			Apr 25, 20	19					
Ð	iĵi	Ũ	¢.	••					

9/23

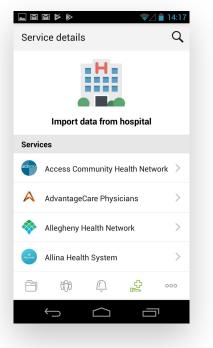
More? Clinical trials, PRO, RWE





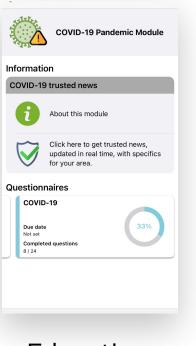
Measuring

More? Patient empowerment



Data access

Andaman





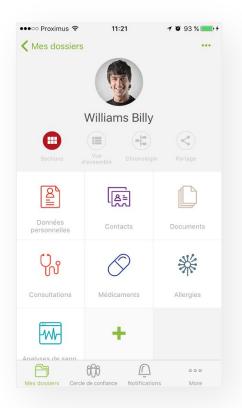
Education

Medication adherence

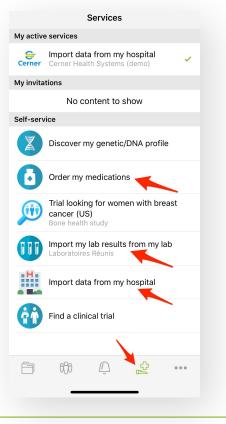


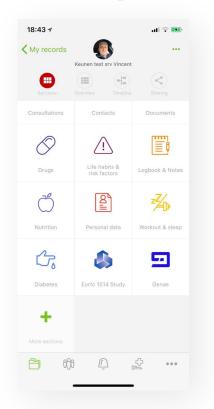
X

Patient services open to third parties



Andaman 🖊





85% of US patients can get their data

Hospitals

Medical

Center



Extensati Essentia Fairview of the Health Health Health Carolina/Mission Services Our Lady Health	Care System Shepard System North Christus America	Australia Australia Access Advantademetricition Alighenetiatis Communificaciónistatis Health West Hospital NetworkSystem System Network
Creenville Greenville Baltimoetudson System Central System System System System South Central Witsconein	Central MountairGouth MeridianHealth HealthCa6linic	← À A MARCHA CHUR AND A MARCHA CHUR AND A MARCHA CHUR AND A MARCHA CHUR AND A MARCHA CHUR A MARCHA CHUR AND A MARC
Haati Heatti Henopi Health System Community Ford Health System Community End Kingaw Health Center Hospita Center	HII HEOOTHEE	The second secon
Linfinmarylnova Institute JPS Jefferss Health and for Health Health Valley Family Network Health Health	Film Anno Katte Ketteringforge LCMc Lary Haalin Hopkin Katte Ketteringforge LCMc Lary Healin Hopkin Health David Health Catter Medicinsfystem Network/Medical Center PA	Image: Construction of the second s
Image: System Image: S		Carlon Carlo
Mary Mary Mayo Greeley Washingtölikin Markalta Healthcare Center	Headiny Mediace Mile	the second
Metro Metrodi Mercy Meritus Health Metro Medical System Health Center Michigan	Katti	Committee Anu-donnee Classical Cover Gazage Covers Handle Jamos de la Coverse Handle Jamos de la Cover
MultiCareNYC NYU Nebraska ^{Nemou} Health Health Langone Medicine System +		E IV DATE DATE DATE DATE DATE DATE DATE DATE

System Community Norton

Children's

Hospital



(demo) Health

Center

Global Reach

Available in the 20 most spoken languages on earth

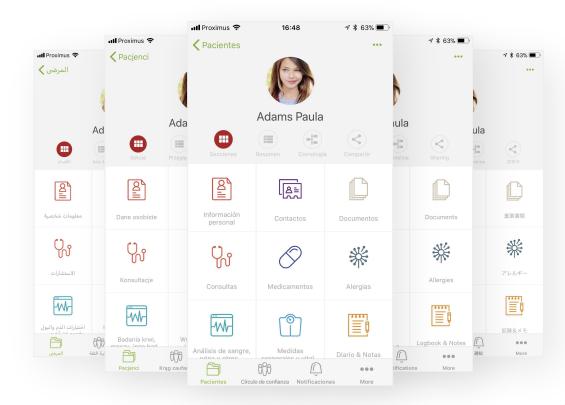




Table of contents

- 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 recommandations
- 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

 \rightarrow 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}

^{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



^{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

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 \rightarrow GDPR ok
- The patient can share his data with a CoT Circle of Trust
 - The patient can contribute to clinical research



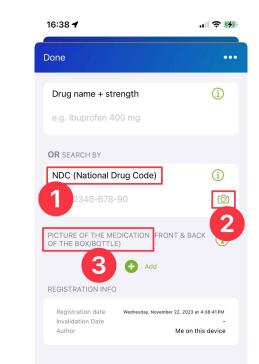
- 1. Unique NDC code
- 2. Scan NDC code + online DB lookup
- 3. Box picture



auate

blets 200 m

- 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

