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How Can Augmented Care Experience (ACE) Improve ACLR Patient's Participation To Web-Based Questionnaires

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Faculty Disclosure Information

- We declare that we have no conflicts of interest in the authorship or publication of this contribution.
- EC: Consultant Arthrex



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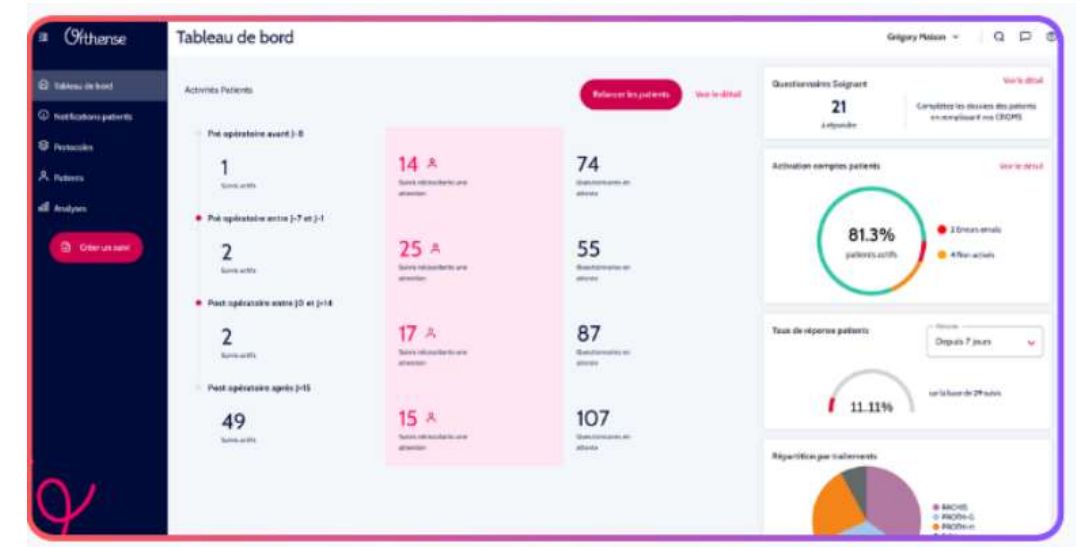
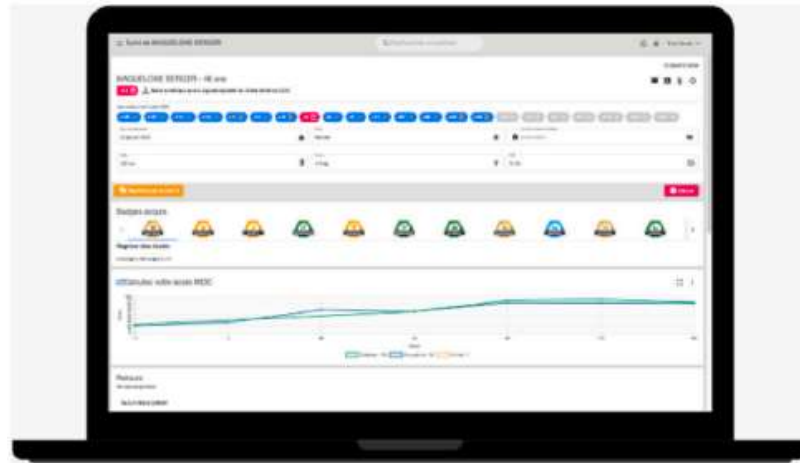
Introduction

- PROM (1):
 - Improve care being offered
 - Compare treatments /strategies
 - Monitor the status of our patients
 - Enhance strategic decision making
- Digital surveys are commonly used to collect PROMs (2)



Introduction

- In our institution, we used a web-based platform (Orthense®) for our patient's follow-up after ACLR from 2019



- Problematic (3-4):
 - Biased sample due to low response rate
 - Missing data
 - Only 16.5% to 44% participation reported in various studies

Introduction

- In 2021, we added an Augmented Care Experience (ACE) process for patients undergoing an ACLR by **delivering free to patient's home before procedure a cryotherapy knee brace (CKB) in an automated process via a Orthense®.**

- Hypotheses:

ACE improve participation to follow-up questionnaires using a Web-based platform (Orthense ®)

Augmented Care Experience (ACE)

- Automated management, digital, complete episode of care
- Constant monitoring
- Provision of materials



45 SEC CONSULTATION
(no reminders)

Email

Last name, First name

DOB

Protocol

Date



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Material and Method

- 101 patients scheduled for ACLR were divided in two groups:

Control group (n = 50):

Orthense® account + paper prescription of a cold knee brace (CKB) for post-operative cryotherapy

ACE group (n = 51):

Orthense® account + delivery in automated and digital process through their account a CKB directly to patient's home without any additional charge

Orthense
2019



Delivered free to
patient's home
before procedure

- Responses on total questionnaires, age, sex, level of education, and satisfaction from the surgery at D+45 were collected



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Results

- 31.7% female and 68.3% male with an average age of 29 years old participated
- Mean response rate to 11 questionnaires was 66.34% in all patients.

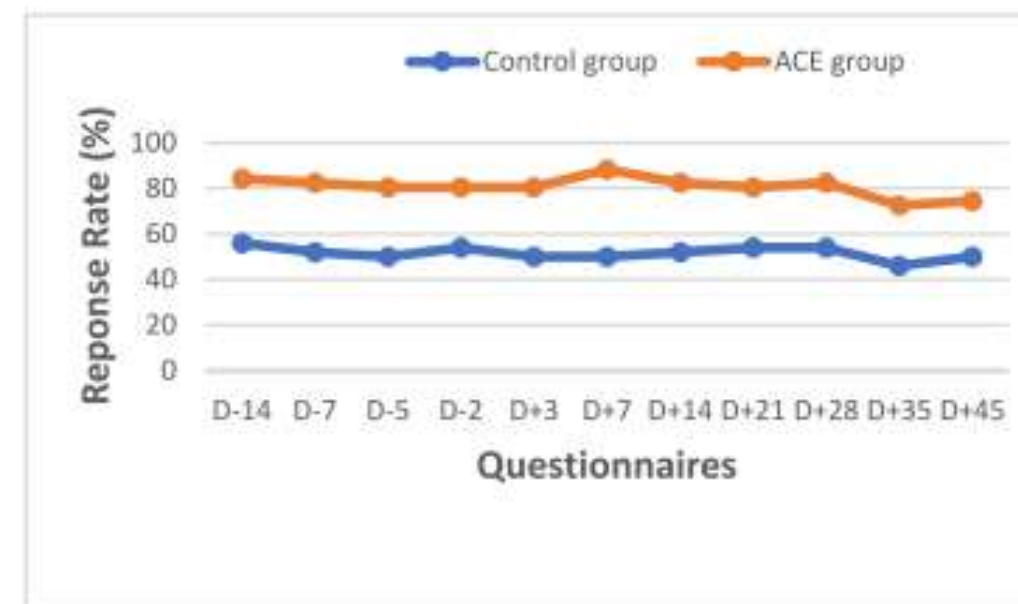
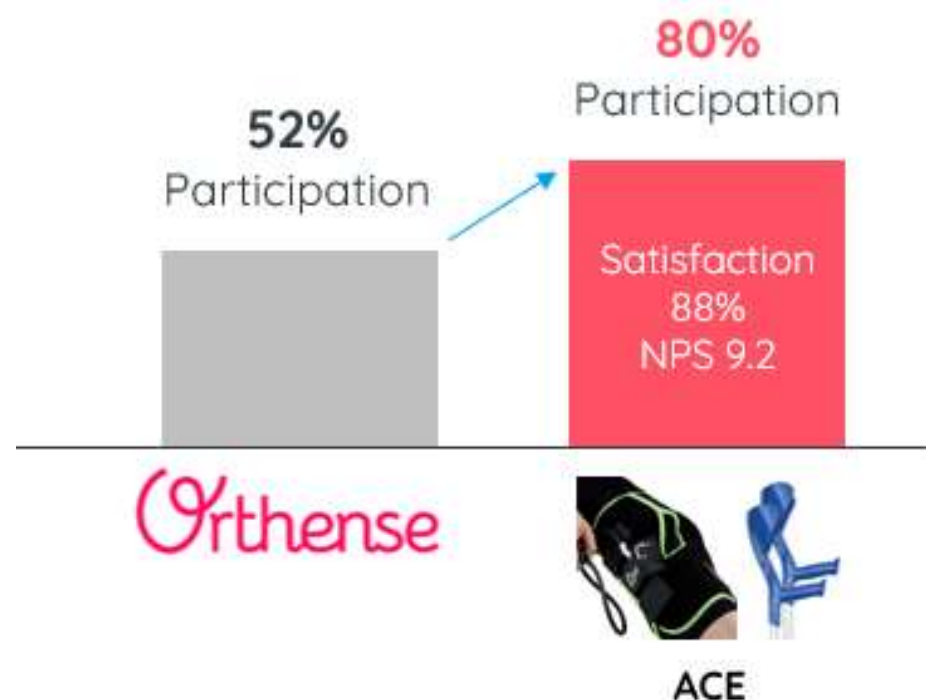
Patients's demographics and satisfaction.

	Control group	ACE group	p value	Total
	50 (49.5)	51 (50.5)		101 (100.0)
Age (years)				
n/missing	50/0	51/0		101/0
Mean (SD)	27.60 (9.75)	30.35 (11.51)	.198	28.99 (10.71)
Gender n(%)			.224	
Female	13 (26.0)	19 (37.3)		32 (31.7)
Male	37 (74.0)	32 (62.7)		69 (68.3)
Education level (%)			.198	
High school	10 (20.8)	7 (15.9)		17 (18.5)
Baccalaureate	15 (31.3)	14 (31.8)		29 (31.5)
Licence	15 (31.3)	8 (18.2)		23 (25.0)
Master	8 (16.7)	15 (34.1)		23 (25.0)
Satisfaction/100-point scale				
n/missing	50/0	44/7		94/7
Mean (SD)	80.50 (14.12)	79.95 (19.84)	.877	80.24 (16.95)

n: number/SD: Standard-Deviation.

Results

- Patients in ACE group responded significantly better with mean response rate of 80.75% vs 51.64% in control group ($p < 0.001$).



Response rate over time

- Female** and **older patients** were factors associated with higher response rate

Discussion

- Comparing to traditional pen-paper surveys, digital surveys allows (5-6-7):
 - easier access to large samples
 - large volumes of information to be stored
 - Faster response
 - Better quality of data with less systematic errors and missing values
 - Lower costs with no effort into collecting, printing, enveloping and storing paper versions
 - More accurate self-reporters for detecting early signs of pulmonary embolism and site infection



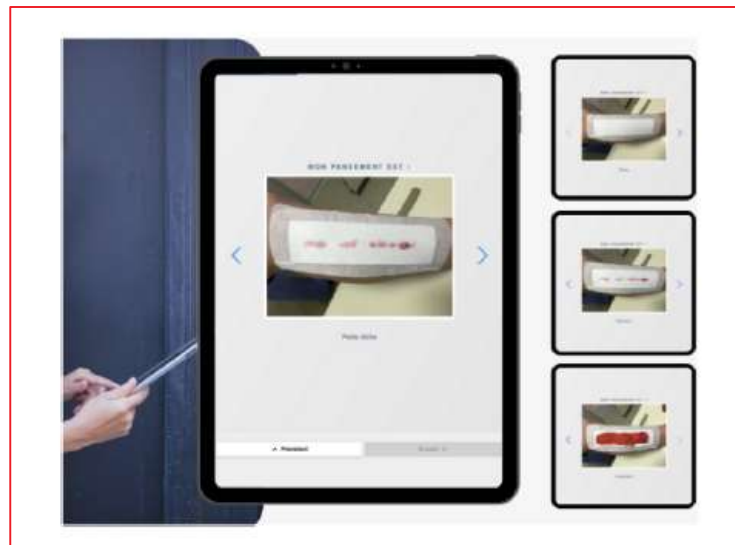
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Discussion

- Digital survey via Orthense® : Real-time scoring to track patient progress over time and improve the quality of patient-centered care



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Discussion

Why ACE

- Home delivery of CKB ensured optimal brace quality without pharmacy visit
- Avoided substitution with non-cryotherapy products by pharmacists.
- Fostered patient recognition and strengthened connection with medical team.
- Enabled dynamic interaction, boosting trust and confidence.
- Enhanced engagement and participation in the digital platform of questionnaires

WHY?

- Automated and SIMPLE
- INTERACTION WITH SURGEON not only passive
- Materials
 - Guaranteed that prescribed product will be available
 - Guaranteed that product will be on hand when needed
- Modern



Conclusion

- ACE showed to be an effective strategy to increase patient's participation to a Web-based follow-up platform.
- The digital platform is acceptable and feasible to be successfully integrated as a part of standard care in ACLR patients, to track their progress over time and allow for real-time feedback to surgeon.
- It allows the patient to feel involved in his recovery, which is an integral part of an ACLR follow-up.



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