

ENortho



Digitalisation du trajet de soin en orthopédie



Health
Food Chain Safety
Environment

Bruxelles, Lundi 19 Janvier 2025

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Objectifs

“ON NE PEUT AMÉLIORER QUE CE QUE L’ON MESURE” *Peter Drucker*

Plan

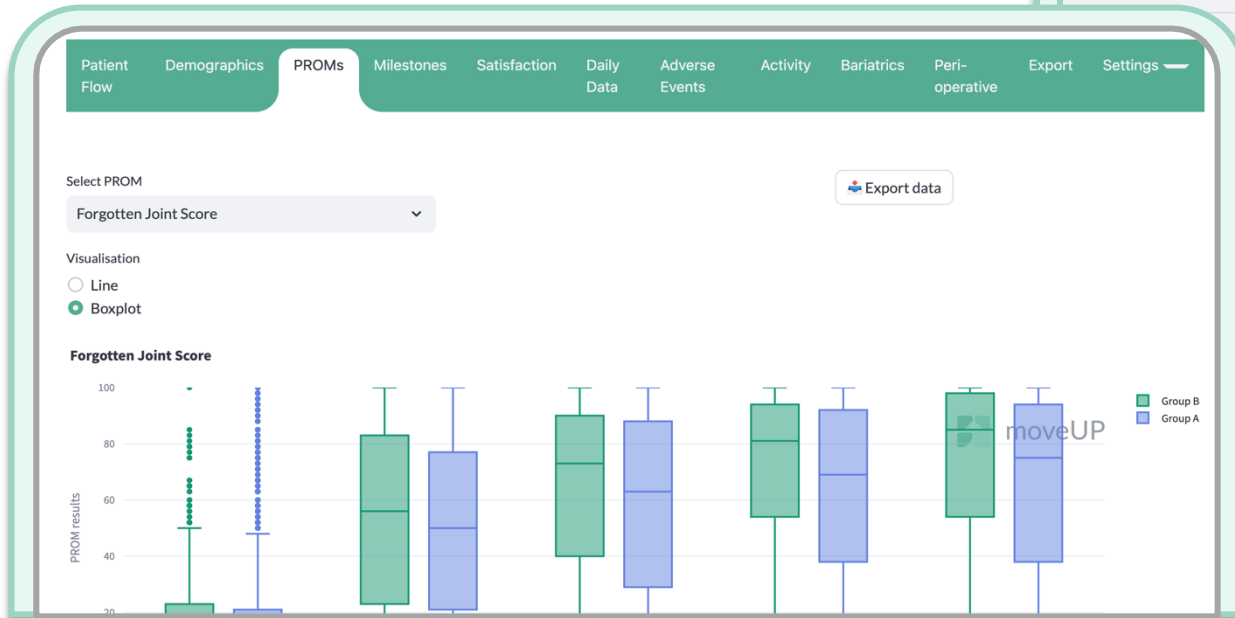
1. Collecte systématique des PROMS / PREMS
2. Digitalisation de processus manuels existants
3. Préparation du shift ambulatoire/ réduction taux utilisation des lits/ gestion des RH

Les défis

- Absence mesures de qualité (PROM/PREM)
- Suivi des complications pas optimisé
- Age moyen population concernée
- Gestion RH
- Pressions de coûts (durée de séjour / ressources)



Optimiser le parcours patient



moveUP

Aggregated view
14982 unique patients retained, 13336 have compliance data available

#	Preoperative	6 weeks	3 months	6 months	1 year	2 years
0	63 %	62 %	52 %	46 %	52 %	48 %

Detailed view

Filter table:

Sort by: **Next due**

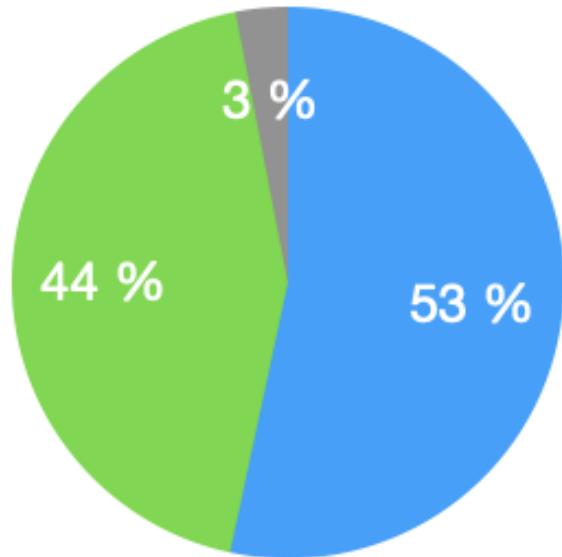
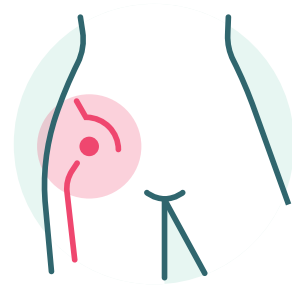
Ascending order

#	Name	Care plan	Birth date	Interv. date	Phone	Next due	PO	6W	3M	6M	1Y	2Y	Details
407	firstname g9rpwj0e2 lasti	TKA General Therapy	1962-12-10	2022-12-16	+12 345 67 89 10	< 1 month	100 %	100 %	100 %	0 %	0 %		HCP / Email
408	firstname eazpeh3ugj lasti	Bariatrics AZ Mol Gastric bypass	1966-06-19	2023-01-19	+12 345 67 89 10	< 1 month	100 %	100 %	100 %	100 %	100 %		HCP / Email
409	firstname qiegfzmp8j lasti	THA General Therapy	1966-08-27	2023-11-21	+12 345 67 89 10	< 1 month	0 %	100 %	100 %				HCP / Email
410	firstname zc5duioz1f lasti	THA General Therapy	1969-06-06	2024-01-19	+12 345 67 89 10	< 1 month	0 %	100 %	0 %				HCP / Email
411	firstname ndp6rez24h lasti	Bariatrics AZ Delta Gastric bypass	2004-06-17	2023-04-27	+12 345 67 89 10	< 1 month	0 %	93 %	0 %	0 %	0 %		HCP / Email
412	firstname 4iicdh9q4 lasti	TKA General Therapy	1955-10-11	2023-11-22	+12 345 67 89 10	< 1 month	0 %	100 %	100 %				HCP / Email
413	firstname q61212ibcok lasti	Knee Coach	1983-05-07	2023-10-06	+12 345 67 89 10	< 1 month			0 %	0 %			HCP / Email
414	firstname n47cy6grik lasti	TKA Sanofi General Therapy	2022-12-16	2022-12-16	+12 345 67 89 10	< 1 month	0 %	0 %	0 %	0 %	0 %		HCP / Email
415	firstname skmt5uxpie lasti	THA Sanofi General Therapy	1961-06-11	2023-11-28	+12 345 67 89 10	< 1 month	100 %	100 %	100 %				HCP / Email
416	firstname 8h75zeiz6 lasti	Bariatrics AZ Delta Gastric bypass	1979-06-03	2023-01-05	+12 345 67 89 10	< 1 month	100 %	100 %	100 %	0 %	0 %		HCP / Email
417	firstname k7bw68xe63 lasti	THA AZMM Companion	1955-05-25	2023-08-23	+12 345 67 89 10	< 1 month	100 %	0 %	0 %	0 %	0 %		HCP / Email
418	firstname a4dcj0ha3 lasti	Bariatrics AZ Delta Gastric bypass	1972-12-29	2023-07-06	+12 345 67 89 10	< 1 month	100 %	100 %	93 %	0 %	0 %		HCP / Email

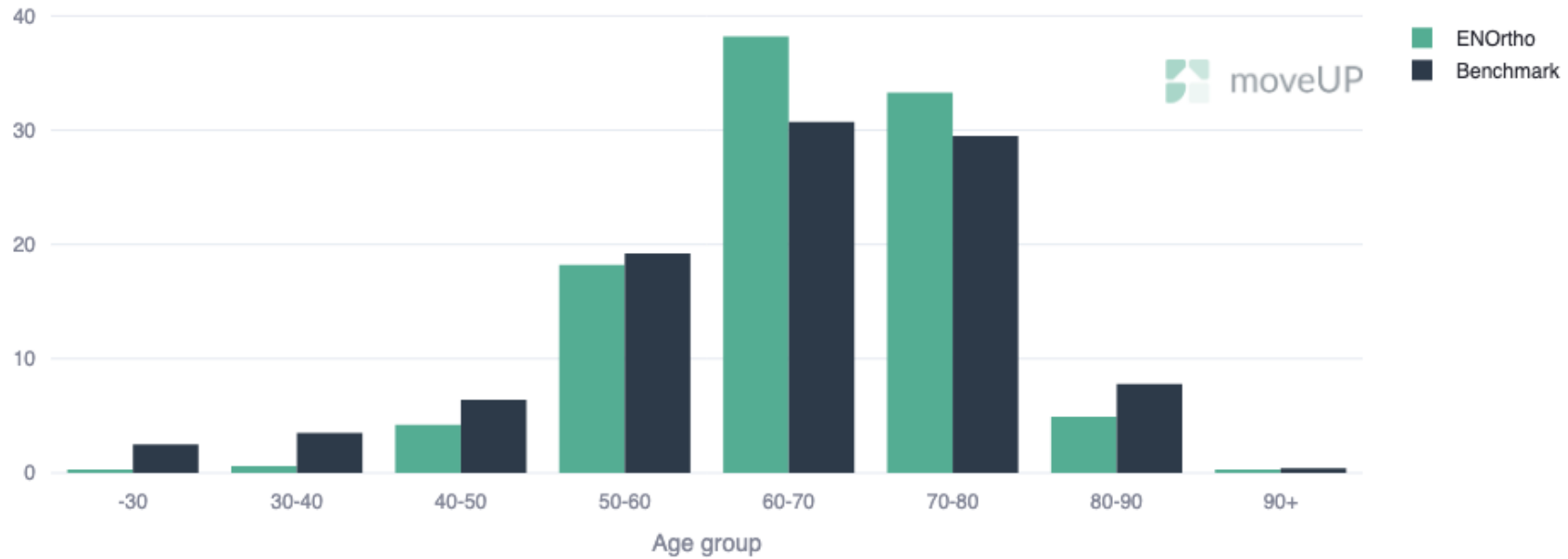


1400 patients

● Knee ● Hip ● Shoulder ● Spine



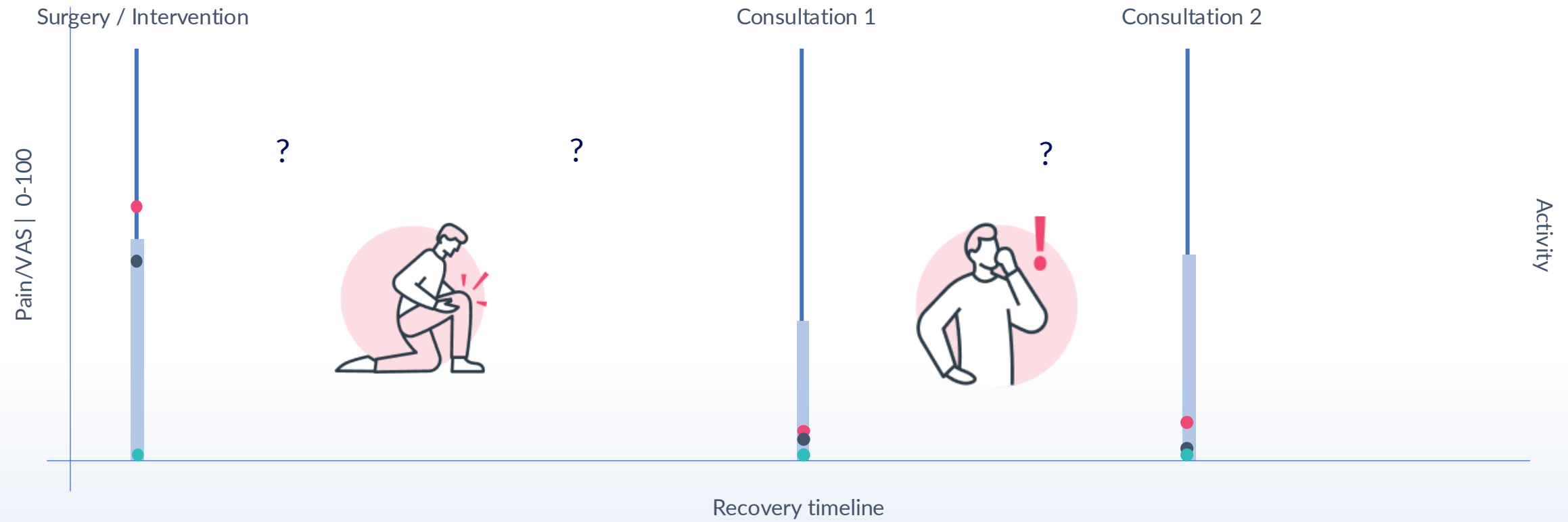
Age distribution





Pre-moveUP

Why we built moveUP
Patient interactions, historically:

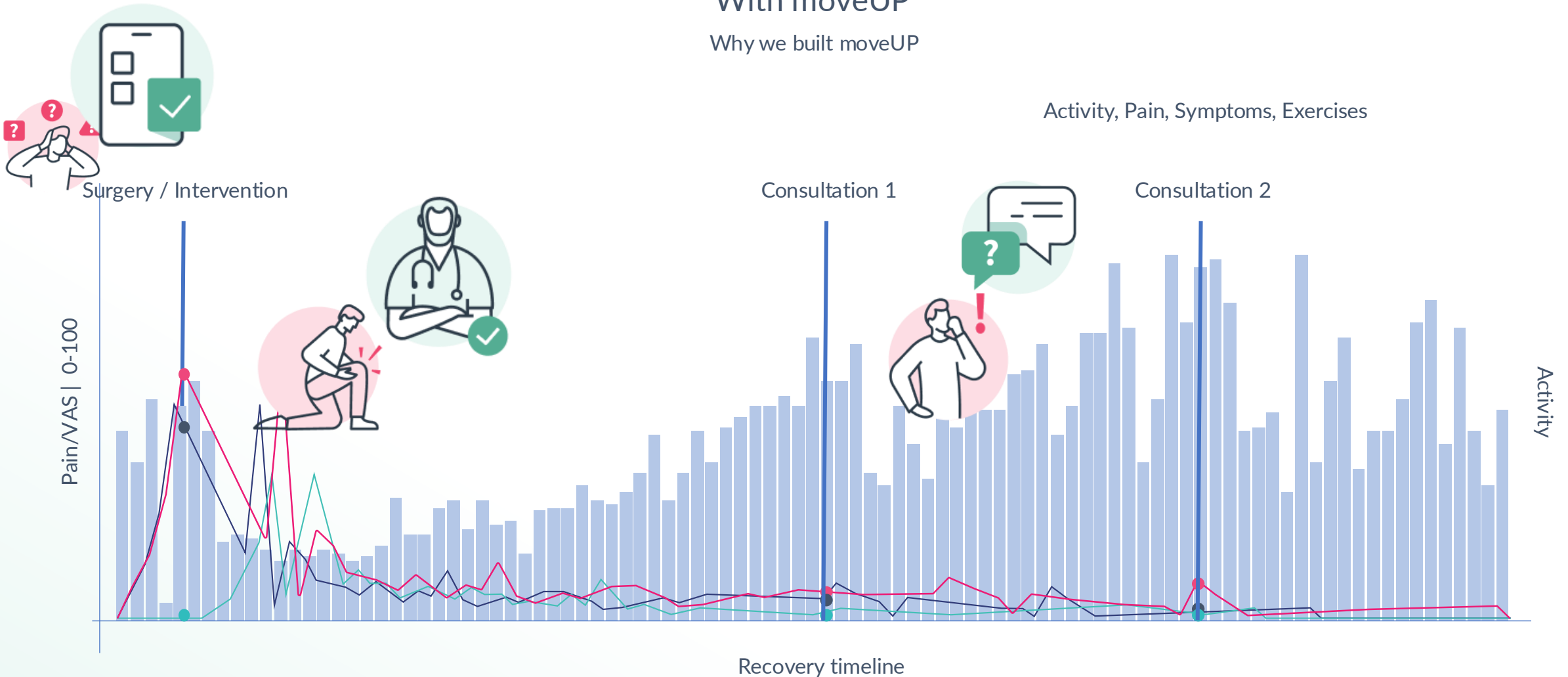


- Activity ●
- Pain during day ●
- Pain during night ●
- Pain during exercises ●

With moveUP

Why we built moveUP

Activity, Pain, Symptoms, Exercises

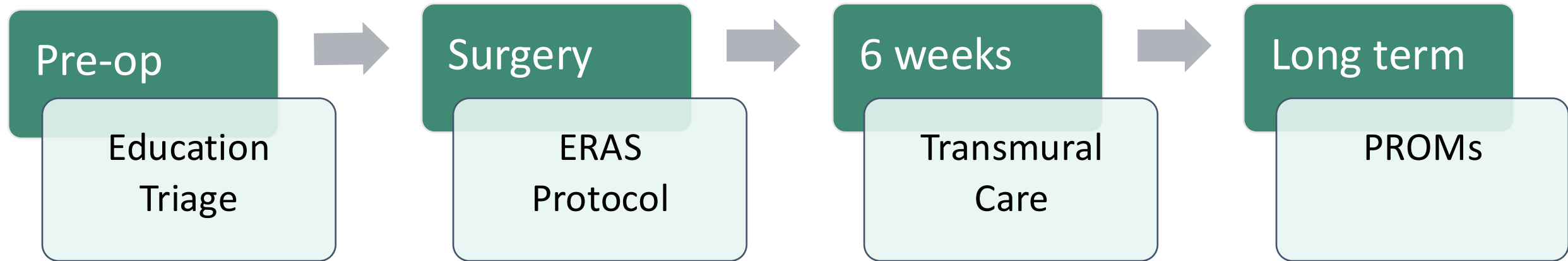


- ✓ Protocole anti douleur et anti inflammatoire optimisés
- ✓ Limites d'activité physique
- ✓ Sélection des exercices

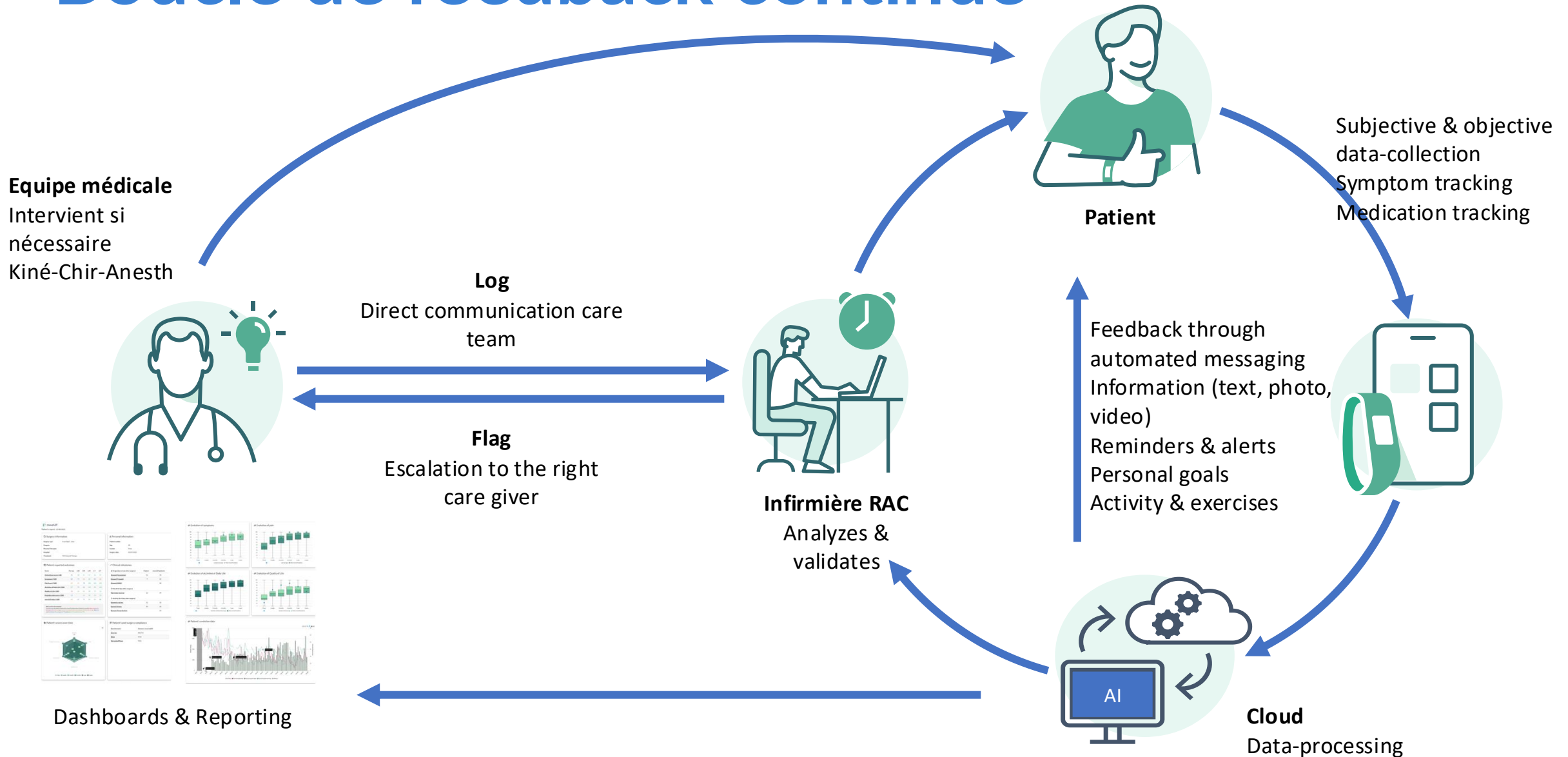
Activity ●
Pain during day ●
Pain during night ●
Pain during exercises ●



Digital care pathway + remote monitoring

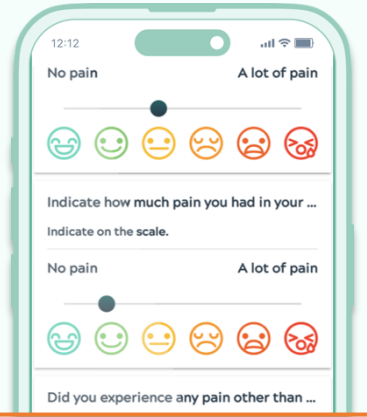


Boucle de feedback continue



Engage patients for optimal compliance & satisfaction

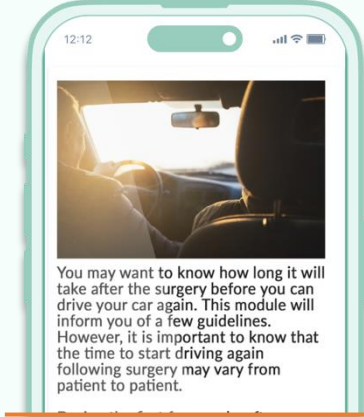
Patient



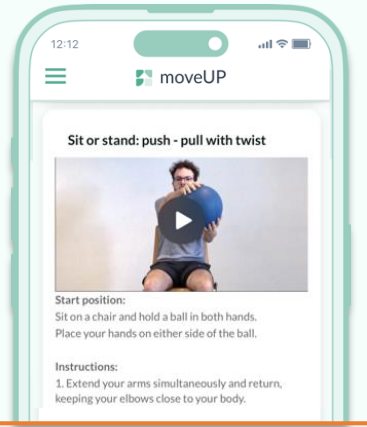
Questionnaires



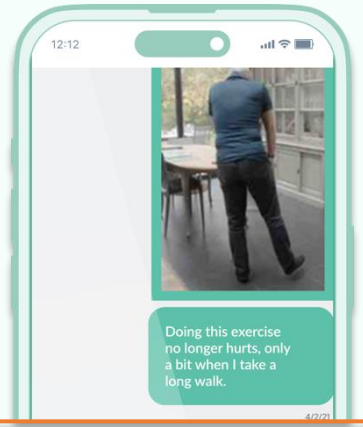
Reminder Function



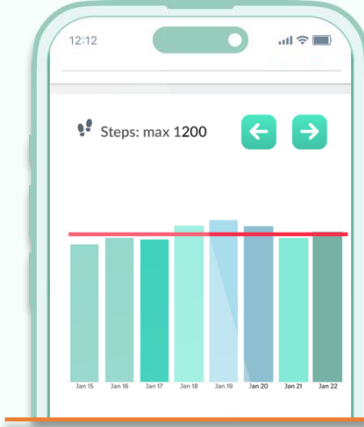
Education



Exercises



Secure Messaging



Sensor integration



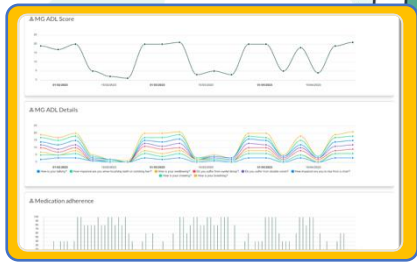
Médical

Empower

Health care professionals in delivering care

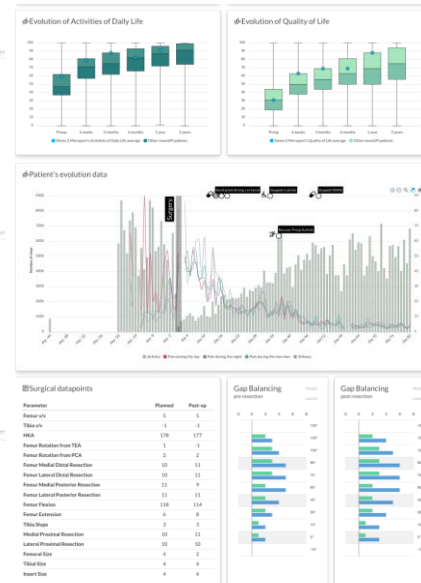


Engaging new patients referral



Surgery information Surgery type: Knee M1 - total Surgery: Distal surgery Physical therapist: Denis Pichard/Elvira PF Hospital: St-Hubert Centre Treatment: TKA General Therapy	Personal information Patient number: 14722 Age: 75 Gender: Male Surgery date: 21/09/2022																																																																																			
Patient-reported outcomes <table border="1"> <thead> <tr> <th>Score</th> <th>Pre-op</th> <th>6W</th> <th>3M</th> <th>6M</th> <th>1Y</th> <th>2Y</th> </tr> </thead> <tbody> <tr> <td>Global Satisfaction (CSI)</td> <td>38</td> <td>58</td> <td>65</td> <td>68</td> <td>63</td> <td>63</td> </tr> <tr> <td>Satisfaction (CSQ)</td> <td>54</td> <td>75</td> <td>69</td> <td>73</td> <td>82</td> <td>82</td> </tr> <tr> <td>Pain Score (CSQ)</td> <td>64</td> <td>64</td> <td>76</td> <td>78</td> <td>89</td> <td>89</td> </tr> <tr> <td>Activities of Daily Life (CSQ)</td> <td>60</td> <td>79</td> <td>88</td> <td>88</td> <td>91</td> <td>91</td> </tr> <tr> <td>Quality of Life (CSQ)</td> <td>31</td> <td>43</td> <td>49</td> <td>49</td> <td>66</td> <td>66</td> </tr> <tr> <td>Operation Satisfaction (CSQ)</td> <td>17</td> <td>49</td> <td>50</td> <td>56</td> <td>56</td> <td>56</td> </tr> <tr> <td>Overall SF-36 (CSQ)</td> <td>50</td> <td>47</td> <td>74</td> <td>69</td> <td>86</td> <td>86</td> </tr> </tbody> </table>	Score	Pre-op	6W	3M	6M	1Y	2Y	Global Satisfaction (CSI)	38	58	65	68	63	63	Satisfaction (CSQ)	54	75	69	73	82	82	Pain Score (CSQ)	64	64	76	78	89	89	Activities of Daily Life (CSQ)	60	79	88	88	91	91	Quality of Life (CSQ)	31	43	49	49	66	66	Operation Satisfaction (CSQ)	17	49	50	56	56	56	Overall SF-36 (CSQ)	50	47	74	69	86	86	Clinical milestones %Change Score of use after surgery <table border="1"> <thead> <tr> <th>Parameter</th> <th>Pre-op</th> <th>Post-op</th> </tr> </thead> <tbody> <tr> <td>Stressed Threshold</td> <td>14</td> <td>13</td> </tr> <tr> <td>Stressed CHAD</td> <td>50</td> <td>28</td> </tr> </tbody> </table> % of days after surgery <table border="1"> <thead> <tr> <th>Parameter</th> <th>Pre-op</th> <th>Post-op</th> </tr> </thead> <tbody> <tr> <td>Pain Under Control</td> <td>16</td> <td>16</td> </tr> </tbody> </table> % Activity of days after surgery <table border="1"> <thead> <tr> <th>Parameter</th> <th>Pre-op</th> <th>Post-op</th> </tr> </thead> <tbody> <tr> <td>Stressed on the job</td> <td>33</td> <td>33</td> </tr> <tr> <td>Stressed on the job</td> <td>35</td> <td>36</td> </tr> <tr> <td>Resumed House Activity</td> <td>36</td> <td>17</td> </tr> </tbody> </table>	Parameter	Pre-op	Post-op	Stressed Threshold	14	13	Stressed CHAD	50	28	Parameter	Pre-op	Post-op	Pain Under Control	16	16	Parameter	Pre-op	Post-op	Stressed on the job	33	33	Stressed on the job	35	36	Resumed House Activity	36	17
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Patient's scores over time 	Patient's post surgery compliance <table border="1"> <thead> <tr> <th>Questionnaire</th> <th>Answers received (%)</th> </tr> </thead> <tbody> <tr> <td>Exercise</td> <td>75.54 %</td> </tr> <tr> <td>Swim</td> <td>100 %</td> </tr> <tr> <td>Pain and stiffness</td> <td>100 %</td> </tr> </tbody> </table>	Questionnaire	Answers received (%)	Exercise	75.54 %	Swim	100 %	Pain and stiffness	100 %																																																																											
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Patient report



Monitoring des patients

HCP interactions with instant alert

Centralized patient list

Prioritized health indicators

Custom filters

Patient status compliance

The screenshot shows a web application interface for patient monitoring. At the top, there are navigation tabs for 'moveUP', 'Patients', and 'Onboarding'. A 'Filter' sidebar on the left allows for filtering by 'List type' (set to 'Follow-up'), search, and categories like 'Care plan', 'Patient', 'Intervention', and 'Tags'. The main area displays a table of 10 patients with columns for Name, Patient number, Hospital/Practice, Date of Birth (age), Program, Lead Clinician, GP, Days of follow-up, Weight gain (3 days), Blood A Pressure, Heart Rate, Steps, 1st line review, Specialist Review, and Actions. The table uses color-coding for health indicators: red for high values (e.g., 113 for weight gain), orange for medium, and green for low values (e.g., 72 for heart rate). Annotations with arrows point to various features: 'Custom filters' points to the sidebar; 'Centralized patient list' points to the table header; 'Patient status compliance' points to a red dot next to a patient number; 'Prioritized health indicators' points to the color-coded cells; 'HCP interactions with instant alert' points to a notification bell icon; 'Real-time messaging' points to a speech bubble icon; and 'Real-time notification' points to a yellow star icon.

Name	Patient number	Hospital/Practice	Date of Birth (age)	Program	Lead Clinician	GP	Days of follow-up	Weight gain 3 days	Blood A Pressure	Heart Rate	Steps	1st line review	Specialist Review	Actions
Claire Henderson	33630	Two rivers Clinic	May 23, 1965 (59)	HF program	Coord Emily Caron	Dr Sarah Lemoine	Sep 19, 2024 (11)	88	160/100	105	0	-	-10	Details
Maxime Carter	32588	Two rivers Clinic	Oct 12, 1969 (54)	HF program	Coord Jean Moret	Dr Marc Dupuis	Sep 17, 2024 (13)	77	150/95	80	1667	★	-10	Details
Emily Dubois	33242	Valley Hospital	Jul 16, 1965 (59)	HF program	Coord Emily Caron	Dr Sarah Lemoine	Sep 17, 2024 (13)	82	150/95	100	1542	-	-10	Details
Olivia Lefebvre	32515	Valley Hospital	Nov 23, 1955 (68)	HF program	Diet Pierre Lafont	Dr Claire Girard	Sep 12, 2024 (18)	88	135/85	70	2623	-	-10	Details
Lucas Thompson	623	Park Medical Center	Dec 24, 1969 (54)	HF program	Psycho Anna Martin	Dr Claire Girard	Aug 7, 2024 (54)	113	130/80	82	2589	-	-10	Details
James Fontaine	34311	Park Medical Center	May 22, 1966 (58)	HF program	Psycho Anna Martin	Dr Thomas Leroy	Sep 25, 2024	65	125/78	80	0	★	-10	Details
William Moreau	27922	Valley Hospital	Sep 1, 1964 (60)	HF program	Diet Pierre Lafont	Dr Sarah Lemoine	Sep 19, 2024 (11)	73	115/70	72	0	-	-10	Details
Isabelle Walker	31682	Two rivers Clinic	Oct 3, 1969 (54)	HF program	Coord Jean Moret	Dr Marc Dupuis	Sep 4, 2024	69	110/68	70	174	-	-10	Details
Sophie Johnson	32470	Park Medical Center	Feb 17, 1964 (60)	HF program	Coord Jean Moret	Dr Marc Dupuis	Aug 1, 2024 (60)	84	105/65	65	14975	-	-10	Details
Michael Rousseau	33042	Valley Hospital	Mar 2, 1949	HF program	Coord Emily Caron	Dr Alice Durand	Aug 7, 2024 (54)	90	105/65	75	4879	-	-10	Details

Real-time messaging

Real-time notification



Retour de données



Digital PROM Pathway

Report



Enhance Patient Compliance

Information
Monitoring
Suivi



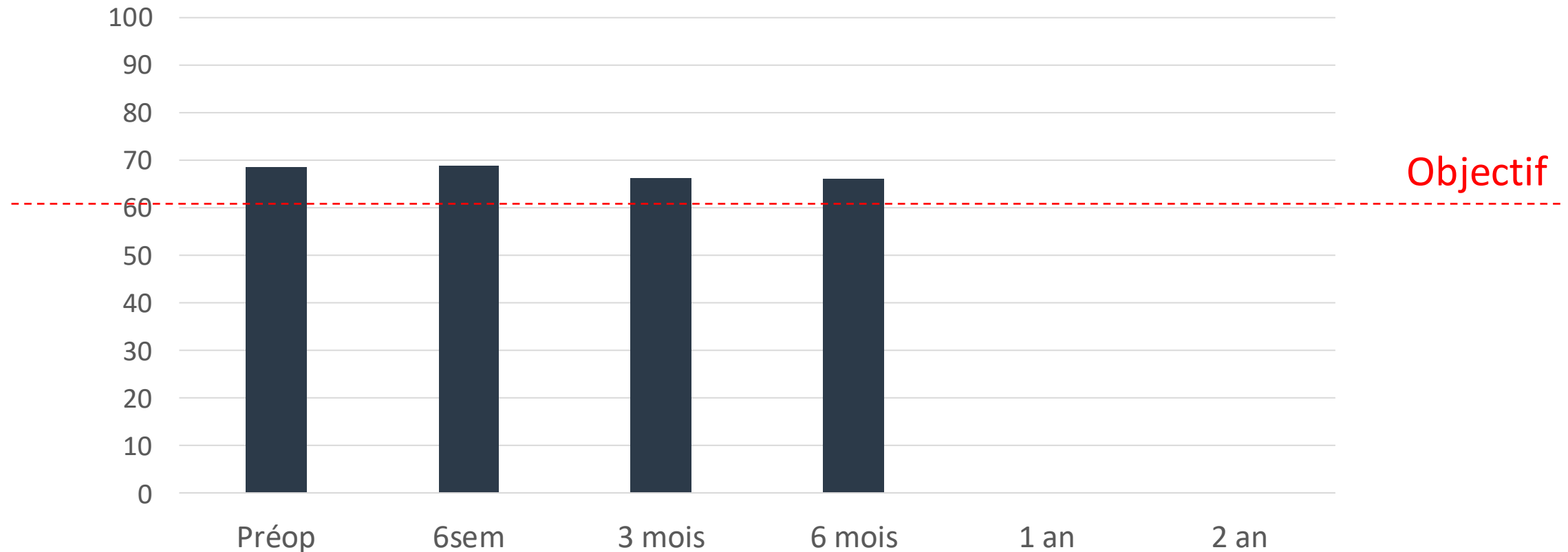
Trusted Research Partner

Expérience patient
Benchmarking

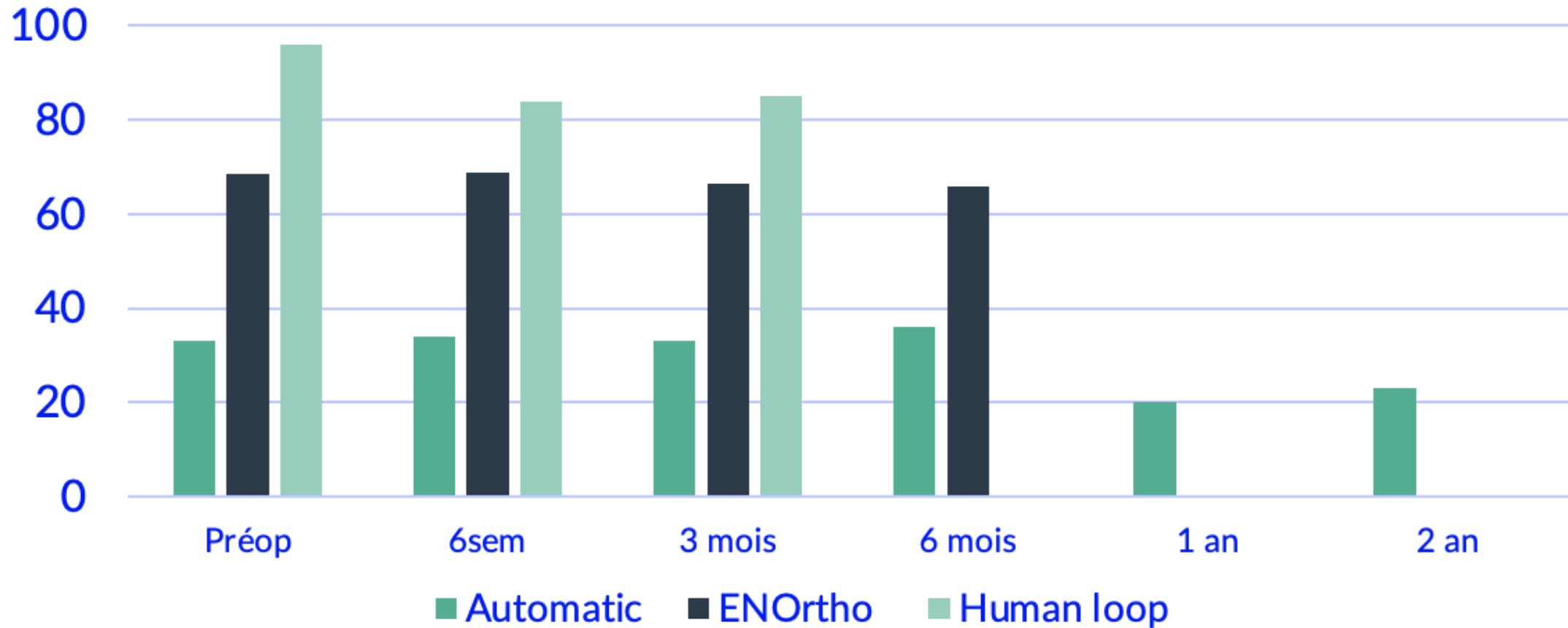
Dataset standardisé

Standardised set	EQ 5D, KOOS JR, HOOS JR, ASES, NPS, free-text feedback
Customised set	Satisfaction surveys, symptom monitoring
Hospital Data	Demographics, Procedure, Complications, Readmissions, length of stay
Usage/adherence	Dashboard access, App usage pattern, Adherence rate,

Taux de remplissage PROM



Adh rence meilleure avec l'humain



Expérience patients



“It’s not just an app –
there are humans behind
it”

« Le rapport permanent que l’on a avec le service orthopédie et tous les bons conseils prodigués par l’application »

« Rester en contact avec le monde médical »

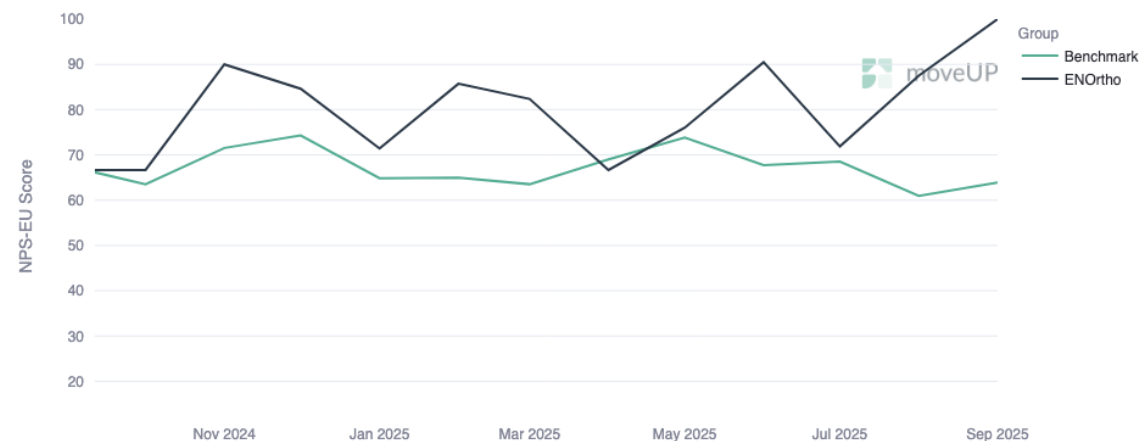
« De tout faire depuis mon domicile »

« Conseils personnalisés en cas de problème »

« L’ensemble des points m’avait été bien expliqué et pratiqué au fur et à mesure lors de mon séjour en clinique, mais c’est toujours bien de le rappeler. »

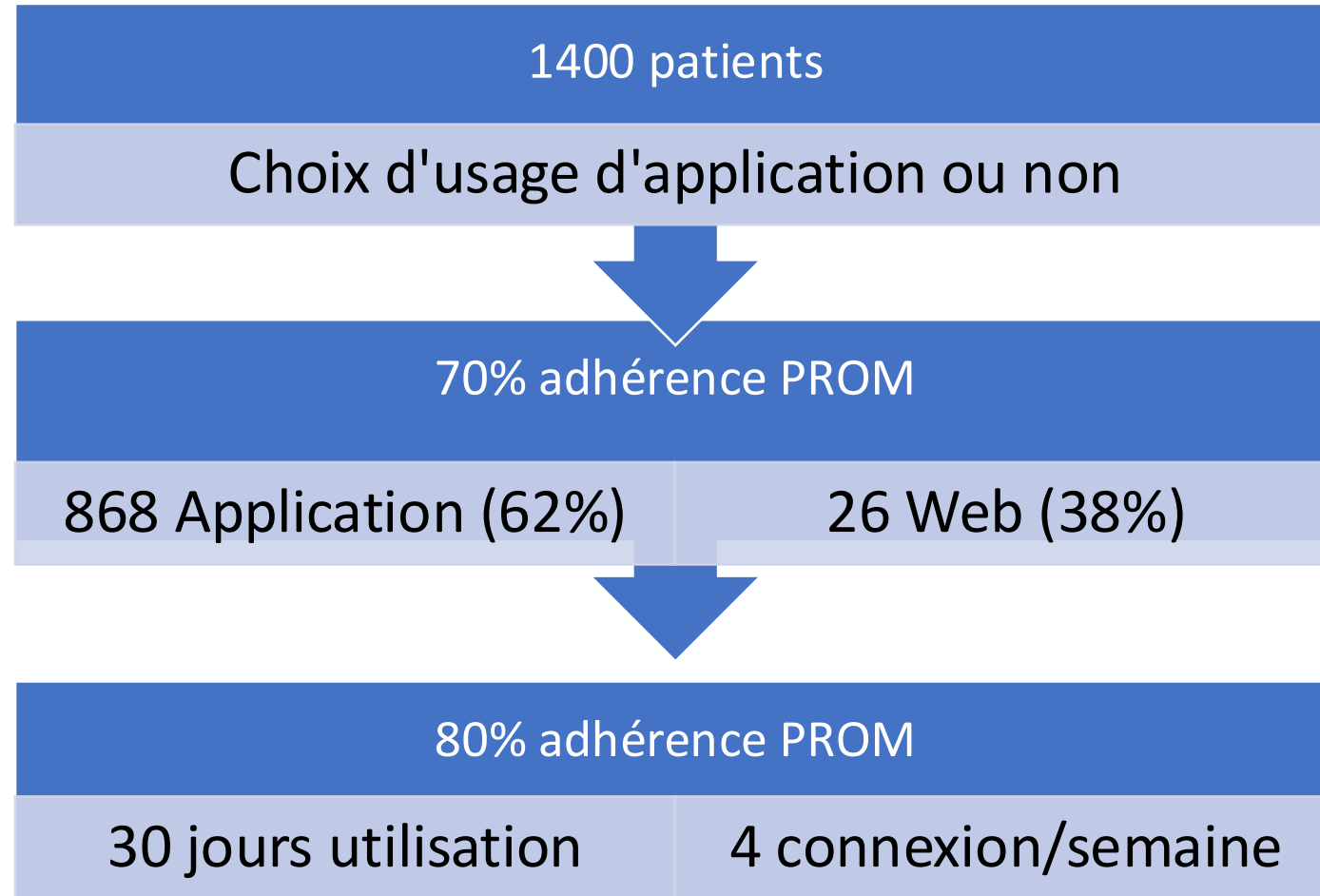
Quelle est la probabilité que vous recommandiez la moveUP à un de vos proches ?

NPS Evolution over time

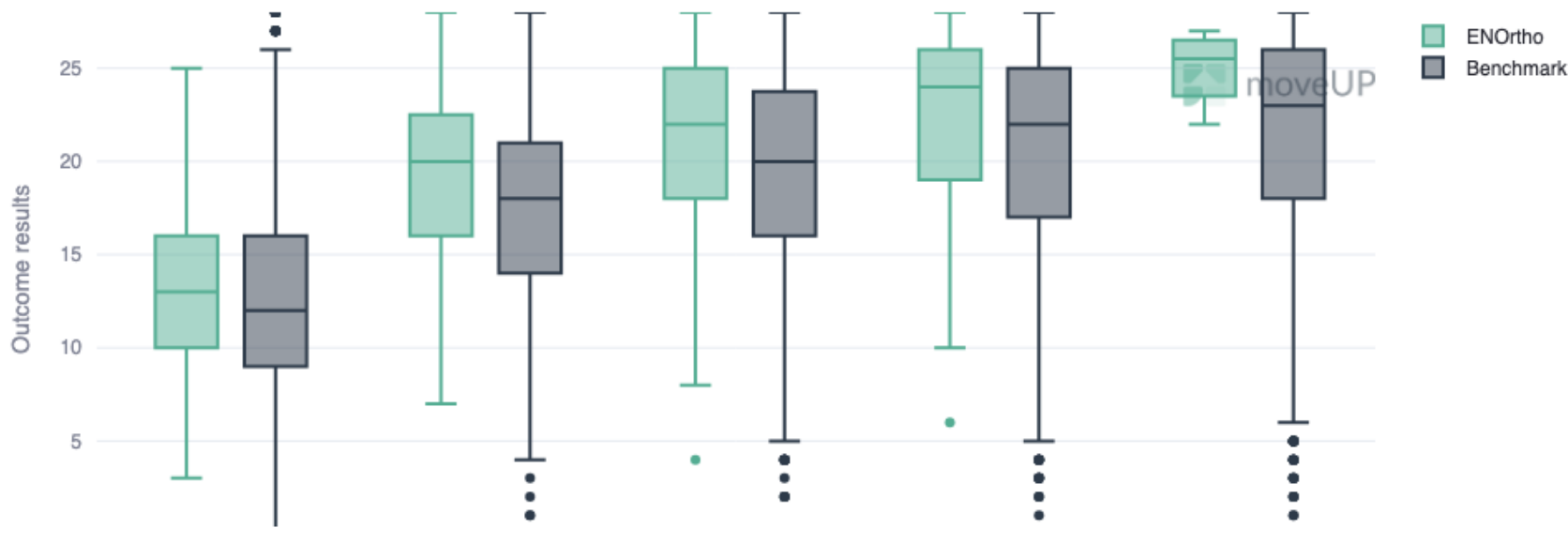
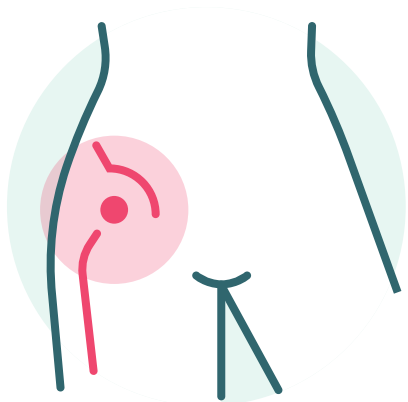


92%

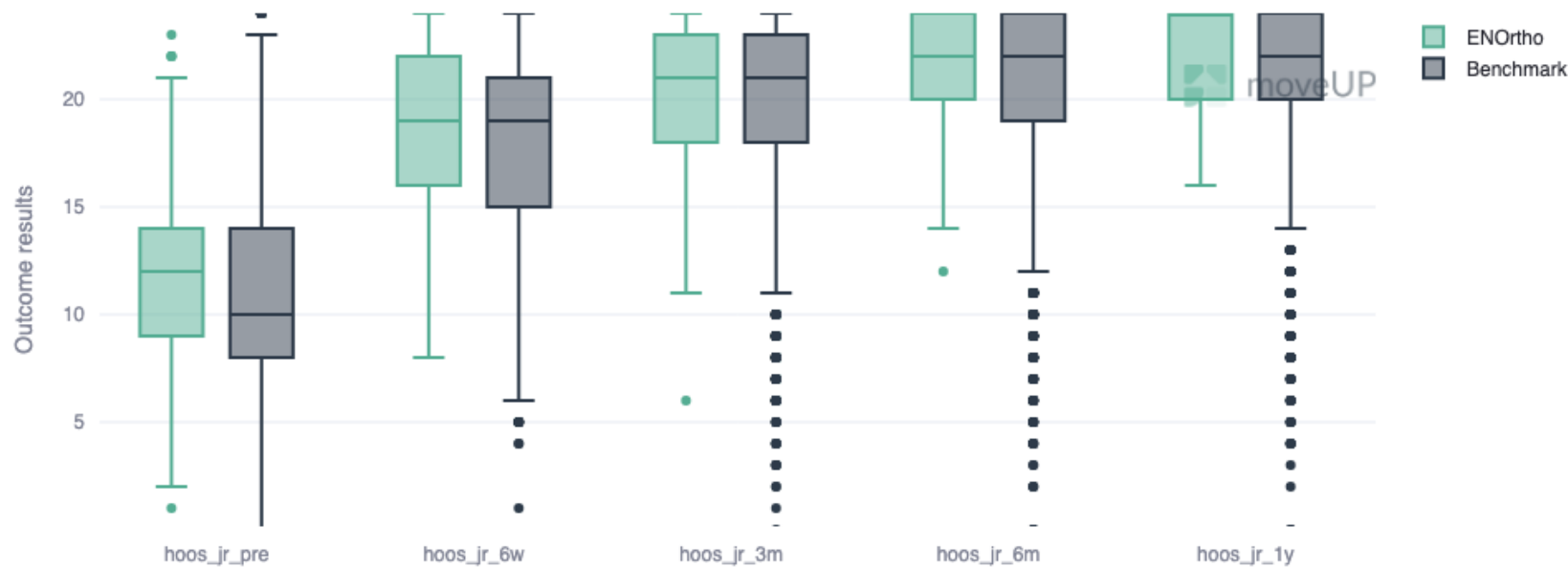
Application



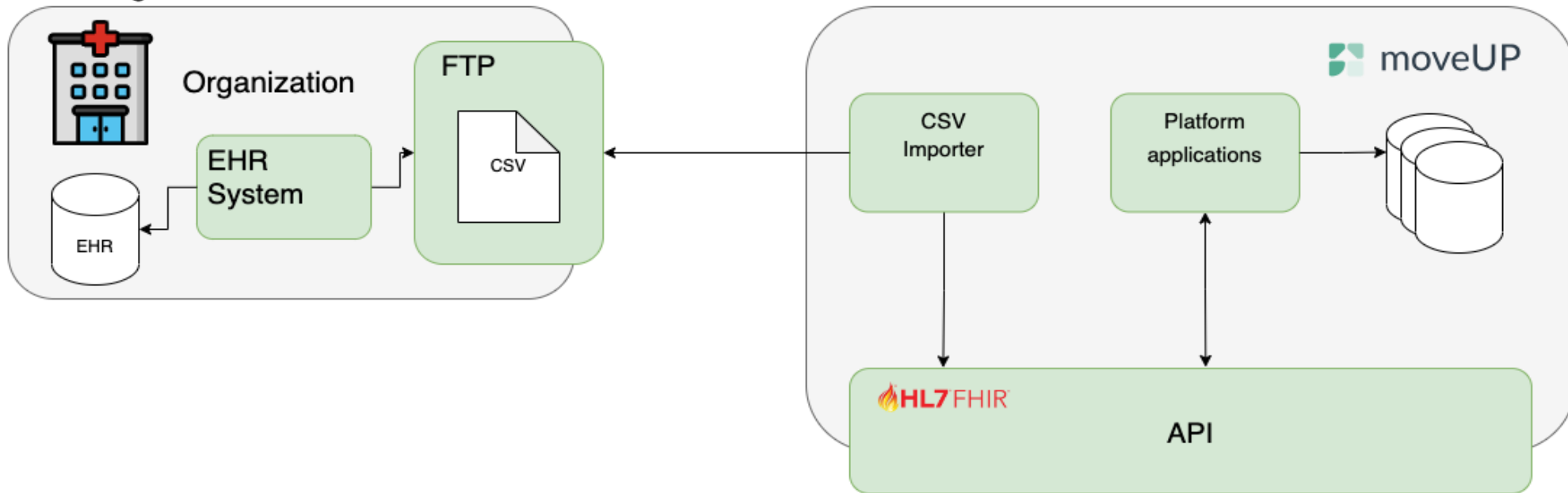
Benchmark



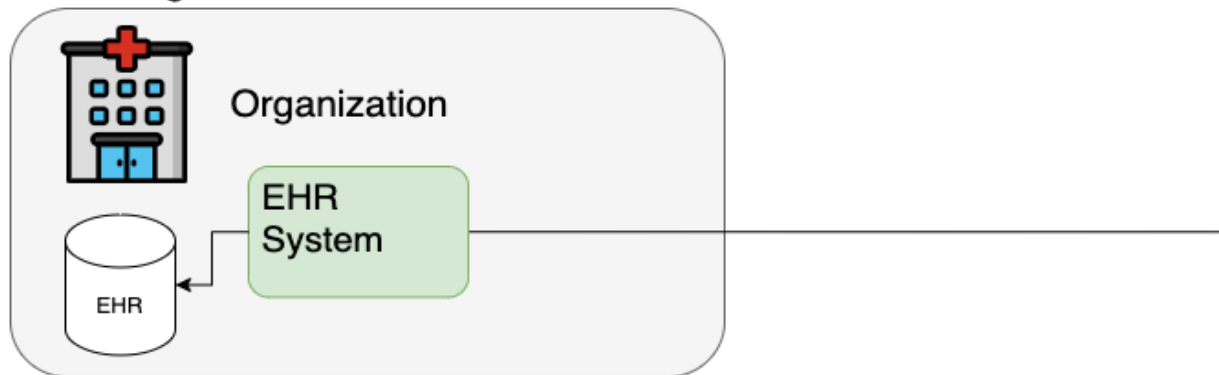
HOOS JR



File integration



API integration





Modèles organisationnels

Coordination

0,5 ETP infi +
engagement médical

Télémonitoring court
400 patients/an

Satisfaction patient +
Prêt à l'ambulatoire

Hybride

0,5 ETP Kiné + infi +
appui médical

Facturable –
Rentabilité >200
patients/an

Secrétariat assisté

0,2 ETP + appui
médical

Support PROM
patient

Adhérence patient
90% !

Modèle organisationnel

40 interlocuteurs

Hopital	Chirurgiens	Medic/Paramedic	Admin/Innov	Type de Suivi	Durée suivi postop
CSPO	4	6	1	Infi RAC pré/post	21
CHIREC	2	2	1	Médical post	45
Bouge	4	3	1	Kiné Post	45
HELORA	1	3	1	Kiné Post	/
Europe	1	1	2	Infi Post	40
CHRSM	2	2	1	Infi Post	21

Leçons apprises

Role clé du champion/coordonateur

Minimum 0,5 ETP dédié pour suivi applicatif
Leadership médical/chirurgien

Besoin de support des patients (séance info, consultation, tel, etc.)

Satisfaction n°1 patient : suivi, accompagnement humain

Continuité en cas de changement de staff

Barrière de la continuité du financement



Impact économique potentiel

- Libération des lits – libère de la capacité
- Evitement des complications et réadmissions

Sustainability

- Investissement de l'institution
 - ROI Suivi qualité
 - ROI préparation ambulatoire
 - ROI attractivité patients
 - Multi-chirurgie : économie d'échelle
- Télémontoring kiné

Vision

- Registre PROM national
 - Accréditations
 - Obligatoire Pays-Bas, Danemark, UK, France, ...
- European health data space
 - Usage secondaire
- Value based care
 - Appropriate care – suppression de la pénalité 26H décharge patient
 - Soutien des assureurs privés
- Soins intégrés
 - Coordination transmurale - Financement ?

Conclusion

Faisable !

- Intégration IT flexible réalisée
- 3 modèles organisationnels
- Intégration transmurale

Clés de l'adoption

- Convaincre l'institution de dépasser le pilote – multi chirurgie
- Ressources minimales : 0,5 FTE
- Déploiement flexible

Pour en savoir plus

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