RegioneEmilia-Romagna

SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

Seminario regionale

ENGAGING PATIENTS FOR PATIENT SAFETY
Il coinvolgimento dei pazienti e dei cittadini nella sicurezza delle cure

care4today® monitor

Care4Today® : una app per i pazienti di chirurgia toracica

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BACKGROUND

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PERI-OPERATIVE TIME ESSENTIAL PHASE IN THOR SURGERY PATIENT'S

ADEQUATE PSYCHO&PHYSICAL PREPARATION KEY FACTOR FOR SUCCESSFUL PROCEDURE

EARLY FOLLOW-UP WITH INTENSE MONITORING AS AN INTEGRAL PART OF THE PATHWAY

CLINIC → SURGERY → DISCHARGE

OBIETTIVI/BENEFICI ATTESI

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#1 FACILITATE COMMUNICATION AFTER DISCHARGE (daily vs planned follow-up visit)

- ✓ MAKING **INFORMATION EXCHANGE** BETWEEN SURGEONS AND PATIENT MORE DIRECT, EASILY ACCESSIBLE, RELIABLE AND SPECIFIC
- ✓ CREATE A **REMOTE CONNECTION**, REDUCING THE NEED FOR HOSPITAL ACCESS (reduced costs for patients and equal accessibility to care)
- ✓ **CATCHING PROMPTLY ONSET OF PROBLEM** or COMPLICATIONS RELATED TO SURG
- ✓ IMPROVE **PATIENT COMPLIANCE IN POST-OPERAT TIME** (anxiety, drug management, …)
- ✓ DESIGNED TO **COMPLEMENT HOSP PROCESSES** and COVER BLIND SPOTS WITH LESSER COVERAGE

METODI / 1

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Mobile APP (Android or iOS) + Health Care Professional portal (HCP)
set of pre-defined questions sent to the patient to trigger a response
as they unlock their smartphone, multiple times per day
Based upon reply, notifications are sent to HCP to evaluate if any actions are to be taken

Disease Specific Quest.	Smartphone Pat App	HCP Portal & Notifications
Pre-defined questionnaires Pre and post surg setting, including: Pain - Wound - Activity levels - Diet	App pushes questions via notifications Android & iOS compatible In local language	HCPs receive emails or notifications if answers are outside a range Allows analysis of individual or collective results (dashboard)

METODI / 2

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- Pre-Surgery
- Safety & Pain
- Wound Infection
- Recovery Activity
- Motivation
- Nutrition
- Smoking Cessation
- Patient Satisfaction

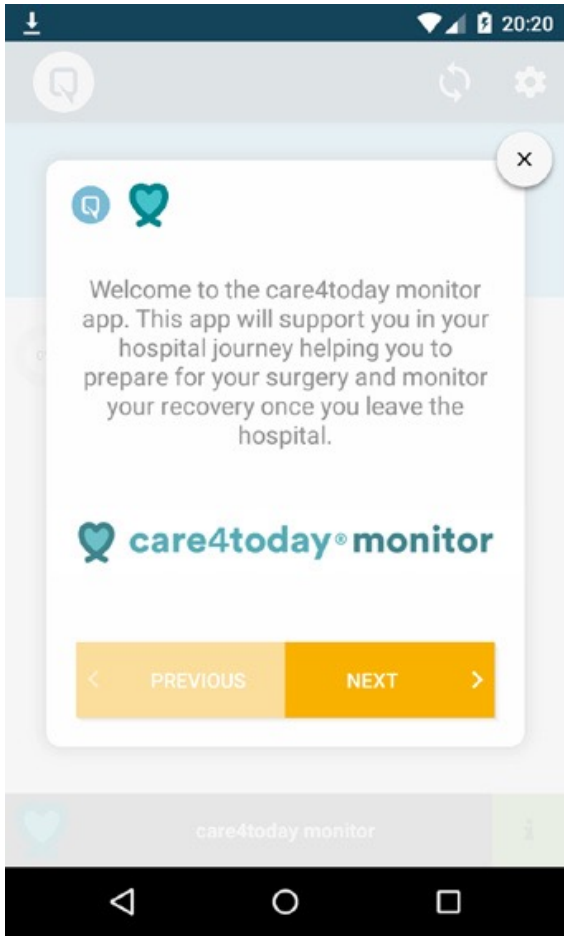
+

SPECIALTY SPECIFIC QUESTIONS breathing, FKT exercise, drain site, cough, thoracic pain, …

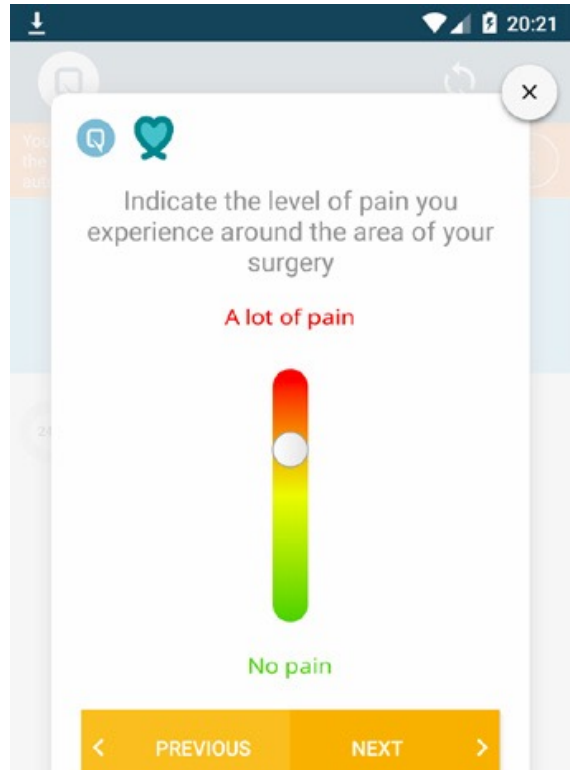
postop day1–15	everyday
postop day16-30	every 4days

automatic email if orange/red alert

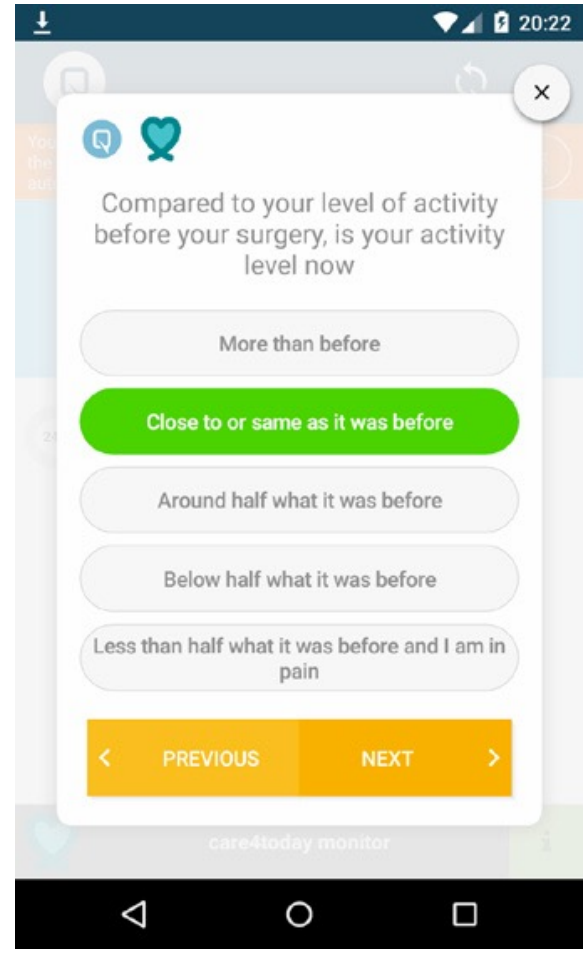
Pre-Surgery

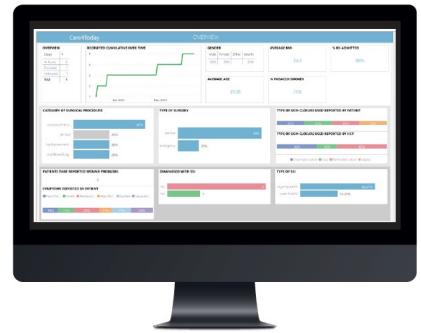


Post-Surgery



Follow-Up





The HCP Dashboard – individual patient

care4today® monitor

Report patient detail (bariatric example)

USERNAME	INSTALLATIONDATE	SURGERYDATE	DAYS FROM ... TO ...	
okhMU73c	1-dec-20	7-dec-20	4 Eligible to Surgery	4 Surgery to Discharge
PATIENT NUMBER	**ELIGIBLEDATE**	**DISCHARGEDATE**		
8989	3-dec-20	11-dec-20		

BMI VARIATION Onboarding to Surgery

-5,71%

BMI OVER TIME

Onboarding	20,90
3 days before Surgery	22,10
2 days after Surgery	21,20
30 days after Surgery	
60 days after Surgery	
90 days after Surgery	
120 days after Surgery	
365 days after Surgery	19,41

PRE-SURGERY

PSYCHOLOGICAL MOTIVATION: (Percentage answered POSITIVE to questions below)

33%
0% 100%

Question	% Positive	Positive	Negative	Not answered
Are you paying attention to how you eat/feed?	0%	0	1	0
Have you tried to implement the changes suggested in anticipation of the intervention?	0%	0	1	0
How do you evaluate your intention/motivation today for the surgery?	100%	1	0	0
Total	**33%**	**1**	**2**	**0**

ADHERENCE TO THE PRE-SURGERY NUTRITIONAL PROTOCOL: (Percentage answered POSITIVE to questions below)

33%

Question	% Positive	Positive	Negative	Not answered
Did you read the diet plan you receive after the visit with the dietician?	0%	0	1	0
Have you tried to follow the scheduled diet plan?	100%	1	0	0

Patient notifications per day

ASRs DURING 31 DAY QUESTIONNAIRE (day 1 is "discharge date")

ASR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Not synced for 60 hours																														1	
Patient did not empty bowels							1	1																							
Patient experiences problems with wound	1																														
Patient has a "too frequent", "too liquid" or "too solid" stool for 3 days													1																		
Patient has a cough	1																														
Patient has a lot of pain and is taking painkillers (VAS btw 5 and 8)		1																													
Patient is short of breath	1		1								1																1		1		

Patient adherence to questions

PATIENT HAS ANSWERED QUESTIONS ON MONITORING DAY:

0 1 2 3 4 5 6 7 8 9 10 11 14 17 20 23 26 29 30 31 35 38 45 52 59 181 188 195 202 223 230 237 363

All questions answered | At least one question answered | No questions answered

% ANSWERED POST-SURGERY TOTAL

34%

Patient satisfaction

POST-SURGERY

PATIENT SATISFACTION:

Average

4,00

0 5

Question	Rating
Care received	●●●●○
Patient monitoring app	●●●●○
Support received	●●●●○

COINVOLGIMENTO PAZIENTI

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RISULTATI (17th August 2023)

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60 pts enrolled (52completed, 2 in-hosp, 6 discharged)
Median age 58.6yrs (range 19-82)

Lung Cancer 85%, Mediastinal Tumour	15%
Minimal invasive surg (VATS/Robotics)	93.3%
Median Hospital Stay	4.6 days

Overall number of questions sent 5221, adequate reply 4048 (77.5%)
Orange alert 455, RED alert 27
Medical intervention required in 13.2 % of cases (phone consultation)
2 pts re-admission (pneumothorax, kidney stones), surgery 0

Orange and red alerts more frequent during 1° week (p=0.001 & 0.006)
Custumer satisfaction index 7.8/10

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LIVELLO IMPLEMENTAZIONE

- ✓ support patients between appointments with aftercare reminders
- ✓ long term follow-up (2 x year, 1 x year)
- ✓ reingeneer specific question toward specific topics at a specific time
- ✓ more than lung cancer surgery only
- ✓ more user-friendly? (7.8/10…)

TRASFERIBILITA’

- ✓ any hospital, any unit, any speciality

Doctor/s focused for many hours/day…

CONCLUSIONI

- ✓ excellent tool for patient's monitoring
- ✓ easy to use even in elderly population
- ✓ room for improvement (7.8/10…)
- ✓ should be regarded as a full-commitment activity
- ✓ maximal benefit if part of a routine (tele-health)