



NORMALIZING NON-PHARMACOLOGICAL PAIN MODALITIES IN PERIOPERATIVE CARE

AN NIH HEAL CONSORTIUM AND PRISM INITIATIVE PRAGMATIC TRIAL

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ABSTRACT TEAM

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OBJECTIVES

01

Describe the design and implementation of the NOHARM pragmatic trial

02

Discuss how its design aims to test strategies for normalizing non-pharmacological pain care within the workflows of diverse busy academic surgery practices.

03

Elucidate challenges to implementing normalization interventions across multiple practices and

BACKGROUND

- Prescriptions for narcotic pain relief after surgery result in unintended prolonged opioid use for hundreds of thousands of Americans.
- Prolonged opioid use leads to dependence, addiction, diversion, and overdoses on a national scale.
- Non-pharmacological pain care (NPPC) is effective and recommended by guidelines for perioperative pain while offering a more favorable risk-to-benefit ratio.
- Patient and clinician decision support interventions are effective in encouraging patient-centered and guideline-concordant care in many other areas of medicine and hold great promise for promoting and facilitating post-operative non-pharmacologic pain management.¹
- **The Non-pharmacological Options in Postoperative Hospital-Based And Rehabilitation Pain Management (NOHARM) study** seeks to transform pain management in the post-operative setting by increasing patient awareness and use of non-pharmacologic ways of managing pain.

Pre-Op
Visit

Pre-Op
Classes &
Assessment

Day of
Surgery
Check-In

Hospitaliza-
tion

Hospital
Dismissal

Outpatient
Follow-
Up

First
Opioid
Refill

Second
Opioid
Refill



Challenges:

- Perioperative care encompasses diverse:
 - Clinicians
 - Settings
 - Workflows
 - Diseases and conditions
- Series of "saturated" clinical touch points
 - None in isolation suffice to advance NPPC use
- Patients have varied and evolving NPPC preferences

The EHR offers a common point of convergence

Prompt clinicians via CDS to:

- Introduce NOHARM NPPC
- Normalize use
- Support options
- Direct patients to NOHARM resources

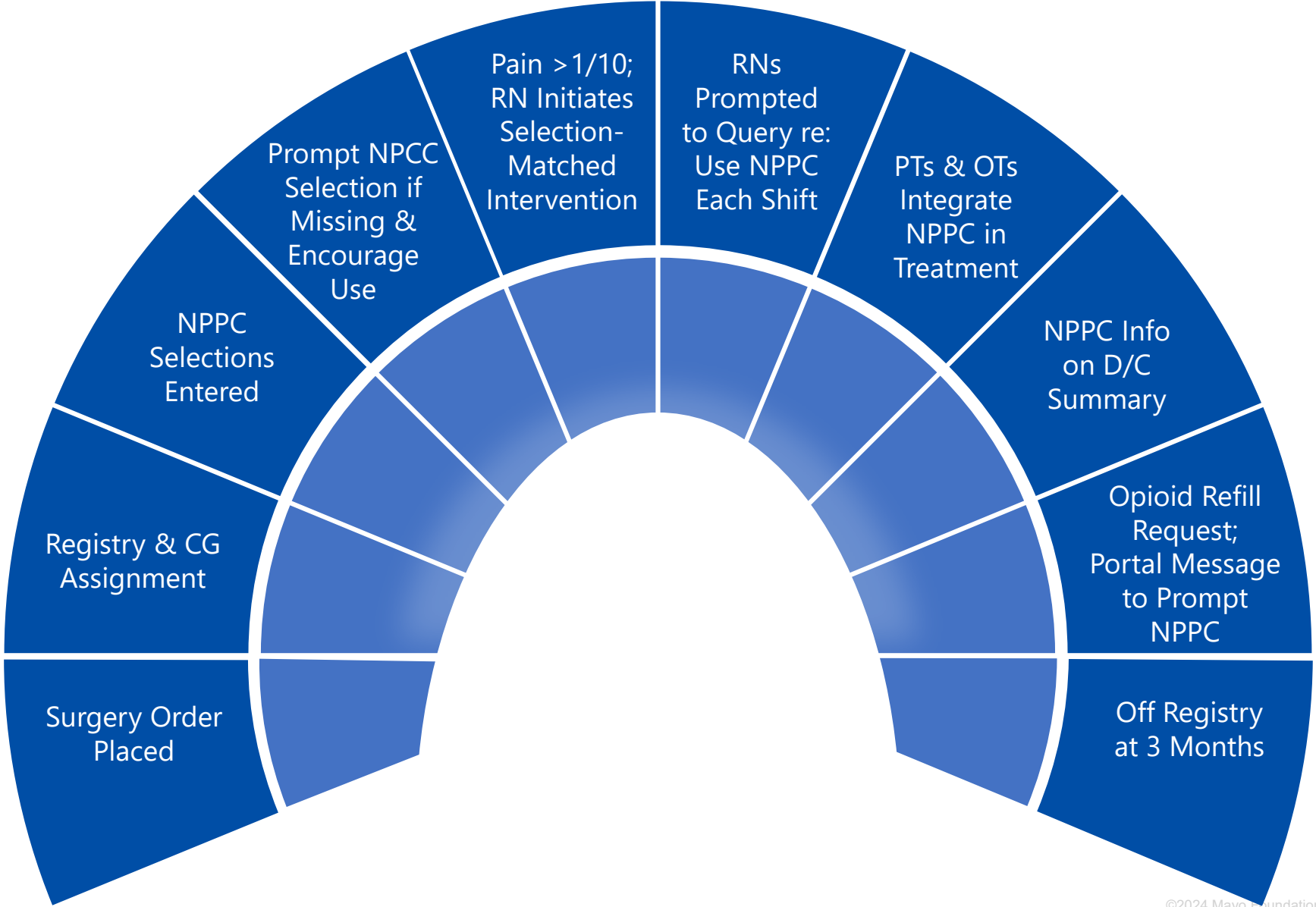


Nexus for multi-stakeholder bi-directional information exchange

Direct patients via portal-based messages to:

- Learn about NPPC and opioid harms/benefits
- Select preference-concordant NPPC options
- Troubleshoot and advance NPPC use
- Access resources

EHR BUILD



NOHARM INTERVENTION:

1. Portal-based *Healing After Surgery Guide* and individualized messages – Supports NPPC education, decision making and use.
2. Suite of self-management educational materials and zoom support calls
3. Clinician-directed Epic-based Clinical Decision Support (CDS)

(The goal is NOT to deny patients access to necessary or helpful pharmacologic options.)

NON-PHARM PAIN CARE (NPPC): VALIDATED FOR POST-OP PAIN MANAGEMENT

Movement

- Walking
- Yoga
- Tai Chi

Physical

- Acupressure
- Massage
- Cold or Heat
- TENS

Relaxation

- Meditation
- Breathing
- Music
- Guided Imagery
- Muscle Relaxation
- Aromatherapy

STUDY AIMS

1. Test the impact of a bundled NOHARM Healing after Surgery Guide + clinical decision support intervention embedded within an EHR on pain and function 3 months following surgery.
2. Test the impact of a bundled NOHARM Healing after Surgery Guide + clinical decision support intervention embedded within an EHR on anxiety and opioid use during the 3 months following surgery.
3. Conduct a mixed methods analysis of patient and care team factors that affect the routine adoption, implementation, and sustainable use of the intervention.

HEALING AFTER SURGERY STEPPED WEDGE DESIGN



	Tranche 1	Tranche 2	Tranche 3	Tranche 4	Tranche 5
	Rochester Cardiac, C-Section Florida Ortho Eau Claire Ortho, Colorectal, Gyn, C-section LaCrosse Gyn, C-Section	Rochester Ortho, Gyn, Lung Arizona Lung, Cardiac Mankato Colorectal	Rochester Colorectal Florida Transplant Arizona Colorectal, Gyn, Transplant	Florida Colorectal, Gyn, Lung, Cardiac Eau Claire Lung, Cardiac Mankato C-Section	Rochester Transplant Arizona Ortho Mankato Ortho LaCrosse Ortho, Colorectal
Control condition	Data Collection 10/16/2020				
Step 1	Go live 3/1/2021				
Step 2		Go live 10/1/2021			
Step 3			Go live 5/1/2022		
Step 4				Go live 12/1/2022	
Step 5					Go live 7/1/2023

EPRO COLLECTION

Time Point	Control Group	Intervention Group
Baseline	Pain, Physical Function, and Anxiety PROMIS-CATs; Opioid Use	Pain, Physical Function, and Anxiety PROMIS-CATs; Opioid Use
1 Month Post-Surgery	Pain and Physical Function PROMIS-CATs	Pain and Physical Function PROMIS-CATs; NPPC Use
2 Months Post-Surgery		Pain and Physical Function PROMIS-CATs; NPPC Use
3 Months Post-Surgery	Pain, Physical Function, and Anxiety PROMIS-CATs; Opioid Use	Pain, Physical Function, and Anxiety PROMIS-CATs; Opioid Use; NPPC Use

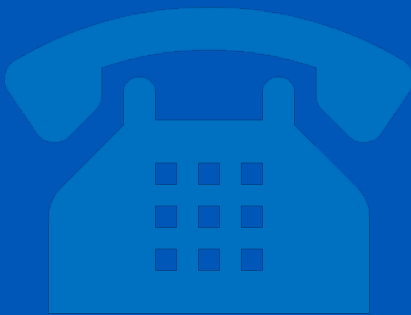
IMPLEMENTATION

- No direct changes to opioid dispensing or prescribing
- Waiver of informed consent b/c Standard of Care trial
- Patients automatically enrolled when they have surgery scheduled by a practice this initiative is live for
- Patients not aware they are part of a study
- Patients receive information about non-medication options for pain management through the patient portal and by mail
- Nursing staff provide support by providing educational materials, recording selections, documenting pain interventions, and encouraging use of non-medication pain options after discharge

PATIENT SUPPORT



- Healing After Surgery group Zoom calls held 3x week
- Instructions for joining sent via portal message, on AVS, and in Healing After Surgery booklet
- Patient toll-free number and website listed in Healing After Surgery booklet



CLINICAL SUPPORT



“Boots on the Ground” team (BOG) train clinical staff, provide support during implementation, communicate through site visits and other communication platforms.



BOG members at each site were first point of contact and “face” of the study



Staff had access to BOG pager and email address



Instructions and resources posted on nursing units and available through EPIC

IMPLEMENTATION CHALLENGES

- COVID resulted in reduced surgical scheduling, short staffing, high turnover, reduced scheduling of in-person visits and trainings
- Varying levels of engagement by nursing leadership
- Time constraints, competing priorities, lack of confidence in providing education
- Patient engagement may be associated with familiarity and prior experiences with NPPC options

QUESTIONS & ANSWERS

