reduced low-scarrer migration to match high-scarrer fibroblast phenotype. GelMA-TLS composites scavenged reactive oxygen species and attenuated the fibrotic markers α-smooth muscle actin and Col1-a1 and corrected growth factor (epidermal growth factor/hepatocyte growth factor/platelet-derived growth factor-β) expression levels in high-scarrer fibroblasts ($p < 0.05$).

CONCLUSIONS: Fibroblasts of distinct scarring phenotypes display characteristic bioenergetic metabolism profiles that can underlie the differences in their response to injury and fibrosis. Metabolic optimization by engineered biomaterials can represent new frontiers in reducing fibrosis.

Finding the Balance Between Reduced Opioid Prescribing and Patient-Reported Pain Management among General Surgery Patients

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INTRODUCTION: In light of the prescription opioid epidemic, many institutions have reduced opioid prescribing after discharge. However, the impact of these reductions on patient-reported pain after discharge remains poorly understood.

METHODS: Opioid-naïve adults undergoing 12 elective general surgery procedures at a single institution prospectively completed a 29-question telephone survey at median 26 days post discharge. Patients were compared before (pre guideline: March 2017 to January 2018) and after (post guideline: May 2019 to November 2019) implementation of a departmental evidence-based, procedure-specific, opioid-prescribing guideline. Prescribed, consumed, and remaining opioids were converted into morphine milligram equivalents.

Table. Comparison of Opioid Prescribing and Use Before and After Prescribing Guidelines

Variable	Pre guidelines (n = 659)	Post guidelines (n = 140)	p Value
Prescribed opioids at discharge, %	83.3	83.3	0.98
MMEs prescribed, median (IQR)	140 (75–225)	60 (38–113)	< 0.001
MMEs consumed, median (IQR)	5 (0–60)	0 (0–53)	0.20
MMEs remaining, median (IQR)	75 (15–150)	30 (0–75)	< 0.001
Patients consumed zero opioids, %	48.0	51.5	0.46
Patients that used nonopioid pain control, %	83.9	81.9	0.59
Refill rate, %	4.5	5.8	0.50
Patients that reported disposal of opioids, %	7.5	16.3	0.01

IQR, interquartile range; MME, morphine milligram equivalent.

RESULTS: Pre-guideline patients (n = 603) were similar to post-guideline patients (n = 138) in age, sex, race, and diagnoses of anxiety/depression (all, $p > 0.05$). Most post-guideline discharge prescriptions (93.3%) fell within guidelines. Morphine milligram equivalents prescribed, consumed, and remaining, and refill rates, are shown (Table). Patients in the post-guideline cohort consumed opioids for a median of 4.0 days (interquartile range [IQR] 2 to 7 days) after surgery (vs 3.0 days [IQR 0 to 7 days] pre guidelines; $p = 0.007$). Patient-reported pain control after discharge (scale 0 to 10) was worse in the post-guideline cohort (median 8 [IQR 7 to 9] post vs 9 [IQR 8 to 10] pre; $p = 0.002$) and more patients reported being very/somewhat dissatisfied with their pain control (9.4% post vs 4.2%; $p = 0.04$). The proportion of patients responding they were not prescribed enough pain medications after discharge also increased (12.2% post vs 4.9% pre; $p = 0.002$).

CONCLUSIONS: Evidence-based opioid prescribing guidelines successfully reduced opioid prescribing without increased refill rates. However, there remains a small subset of patients whose pain might not be optimally managed within these guidelines.

Gallstone-Related Complications after Untreated Biliary Colic: A 6-Month Readmissions Study

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