



PC3I

PENN CENTER *for*
CANCER CARE INNOVATION

Research to Transform Cancer Care



The University of Pennsylvania Abramson Cancer Center

Our Mission

is to inspire, design, and advance solutions to make cancer care better by:

- Improving health and healthcare for patients with cancer
- Increasing efficiency and reducing costs while improving cancer care outcomes
- Catalyzing innovation in cancer care with our partners

Our Approach

is to discover, translate, test, and scale new strategies for cancer care delivery within Penn Medicine and our partners.

Our Partners

include health care delivery organizations, big data health care firms, and regional and national insurers

Our Initiatives

to improve cancer care are focused on:

- Clinical transformation
- Payment models and affordability
- Incentives to change behavior

See next page for selected examples of our impact

PARTICIPATION

We welcome inquiries from interested partners and colleagues.

HOW TO CONNECT

pc3i@pennmedicine.upenn.edu

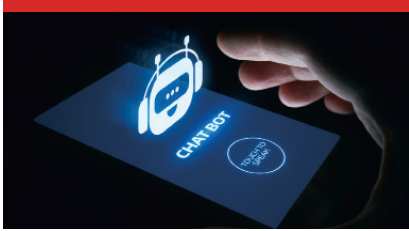
ALSO COMING SOON

The new PC3I.upenn.edu website. Watch for the announcement of its launch.

*Founded at the
University of Pennsylvania
Abramson Cancer Center*



Selected Examples of Our Impact



CLINICAL TRANSFORMATION

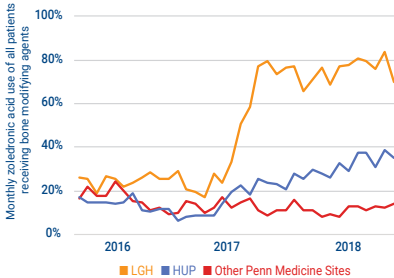
- PROJECT:** Artificial intelligence augmented chat bot to improve oral chemotherapy adherence and reduce unplanned acute care.
- DESCRIPTION:** PC31 is collaborating with the Penn Medicine Innovation Center to develop an artificial intelligence augmented chat bot to enhance oral chemotherapy adherence and reduce unplanned hospitalizations and emergency department visits.
- IMPACT:** Improved cancer control, reduced unplanned acute care, reduced health care spending.



CLINICAL TRANSFORMATION

- PROJECT:** Cancer treatment at home: safe, effective, and closer than you think.
- DESCRIPTION:** PC31 developed the concept and is testing cancer care at home. By managing symptoms of pain, nausea, and dehydration that can lead to hospital admissions or giving cancer drugs at home, this intervention could yield equal or higher-quality cancer care and greater patient satisfaction at lower cost than traditional care in a hospital or physician's office.
- IMPACT:** Greater patient satisfaction, reduced unplanned acute care, reduced health care spending.

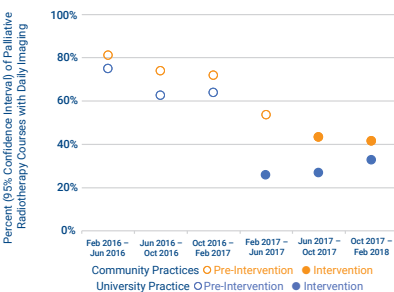
RELATION BETWEEN NUDGES AND MONTHLY ZOLEDRONIC ACID AT LGH, HUP, AND OTHER PENN MEDICINE SITES, 2016-2018



INCENTIVES TO CHANGE BEHAVIOR

- PROJECT:** Nudges informed by behavioral economics to increase utilization of higher-value cancer drugs.
- DESCRIPTION:** PC31 found that nudges within the electronic health record directed at medical oncologists increased utilization of higher-value cancer drugs by several fold among 115 medical oncologists treating 1,476 patients who received 4,567 prescriptions of bone-modifying agent at 5 hospital and 4 community outpatient treatment facilities in Pennsylvania and New Jersey.
- IMPACT:** Reduced financial toxicity and reduced health care spending, with similar treatment effectiveness through efficient, scalable interventions within the electronic health record.

UNADJUSTED TRENDS IN DAILY IMAGING DURING PALLIATIVE RADIOTHERAPY



INCENTIVES TO CHANGE BEHAVIOR

- PROJECT:** Nudges informed by behavioral economics to reduce lower-value cancer care.
- DESCRIPTION:** PC31 collaborated with the Penn Medicine Nudge Unit to show that nudges within the electronic health record directed at radiation oncologists decreased utilization of unnecessary daily imaging during palliative radiotherapy among 21 radiation oncologists treating 1,019 patients at 5 treatment facilities in Pennsylvania and New Jersey.
- IMPACT:** Faster treatment completion, greater patient satisfaction, reduced health care spending.



PAYMENT MODELS

- PROJECT:** Alternative payment model for cancer drugs.
- DESCRIPTION:** PC31 found that UnitedHealthcare's voluntary payment program to lower the financial burden of cancer care attracted medical oncology practices that already focused on affordability and thus had no meaningful effects on the use of high-cost cancer drugs, spending, or out-of-pocket expenses.
- IMPACT:** Provided key evidence to inform the Centers for Medicare and Medicaid Services and commercial insurers of the pros and cons of voluntary vs. mandatory alternative payment models.