#### Faculty of Health Data Science, Juntendo University

# 医療政策•医療経済

Health Policy and Health economics Research Laboratory

●放射線診断学、医療政策、医療経済

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#### 研究概要 / Research overview |

レセプト等の様々なデータベースを活用し、診療 報酬改定や医療の質、医療機器の配置等に関する課 題を分析・評価する研究を行っている。また、災害関 連死を防ぐための産学官連携研究を行っている。

Conducting evaluative research on topics such as healthcare fee schedule revisions, quality of care, and the allocation of medical devices using various databases including healthcare claims. Also engaged in industry-academia-government collaborative research aimed at preventing disaster-related deaths.

#### 研究の流れ / Research flow

#### 臨床・政策課題の同定

Identification of clinical and policy issues



#### 解析と評価

Analysis and evaluation

# 適切なデータベースの選択

Selection of appropriate databases



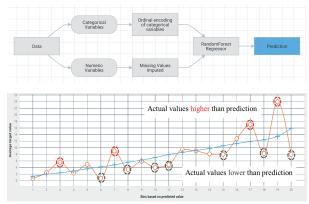
## アウトカムや分析手法の設定

Definition of outcomes and analytical methods

## 研究成果 / Research outputs

NDB を用いて小児の頭部外傷後 CT の都道府 県別の頻度解析したところ、日本国内で地域差が顕 著であり、機械学習アルゴリズムの予測を上回る CT 実施がみられた地域では、放射線科医の数が相 対的に少ない傾向が見られた。

The frequency of pediatric head CT for trauma (HCTT) exhibited significant regional variation. In areas where the occurrence of pHCTTs surpassed the predictions of a highly accurate ML algorithm, the number of radiologists was found to be comparatively lower.

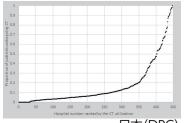


Lift chart demonstrating predicted (+) and actual (o) pHCTT frequency (predicted value is divided into 20 equal bins)

日米で入院支払い DB を用い整形外科手術後の肺塞栓 CT検査頻度を解析したところ、病院間格差は米国では小、日 本では大となり、日本でのガイドラインの普及等の課題が浮 き彫りとなった。

Analyses using inpatient payment databases from Japan and the United States revealed that the inter-hospital variation in the use of CTs for pulmonary embolism after orthopedic surgery was

smaller in the U.S. and larger in Japan. This highlighted challenges in Japan, such as the dissemination and implementation of clinical guidelines.



日本(DPC) Unadjusted probability of undergoing CTPA · Adjusted probability of undergoing CTPA 2% (Premier) Hospital Number Ranked by CTPA Rate

Figure. The probability of patients undergoing CT pulmonary angiography (CTPA) has a large variance among 177 hospitals (from 0% to 8-9%), even after adjustment of the patient- and hospital-level factors.