

Reducing Unnecessary X-rays for Low Back Pain in the Emergency Department

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Overuse Issue & Rationale

- Overuse of conventional radiography for patients presenting with low back pain.
- Imaging exposes patients to unnecessary radiation, and may lead to unnecessary procedures that lead to unintended harm.

Setting

Jacobi Medical Center is a Level 1 Trauma Center Emergency Department in the Bronx, New York.

65,000 ED visits per year.

Patients are predominantly uninsured or publicly insured.

Team: Emergency Medicine Residents

Early Critical Steps

- **Conduct a medical literature review** to identify a consensus about indicators of appropriate or inappropriate imaging.
- **Determine levels of overuse and possible harm** early through:
 - Identify possible sources of data.
 - Conducting chart reviews.
- **Assess** both internal and external stakeholder buy-in, as well as sources of resistance.

Strategies

- **Clinician education and awareness:** through lectures during usual ED faculty/resident meetings about potential harm from overuse and address concerns.
- **Patient education:** about potential for harm through materials placed in exam rooms.
- **Peer-to-peer feedback:** top 3 over utilizers identified for hallway conversation with the clinical champion.



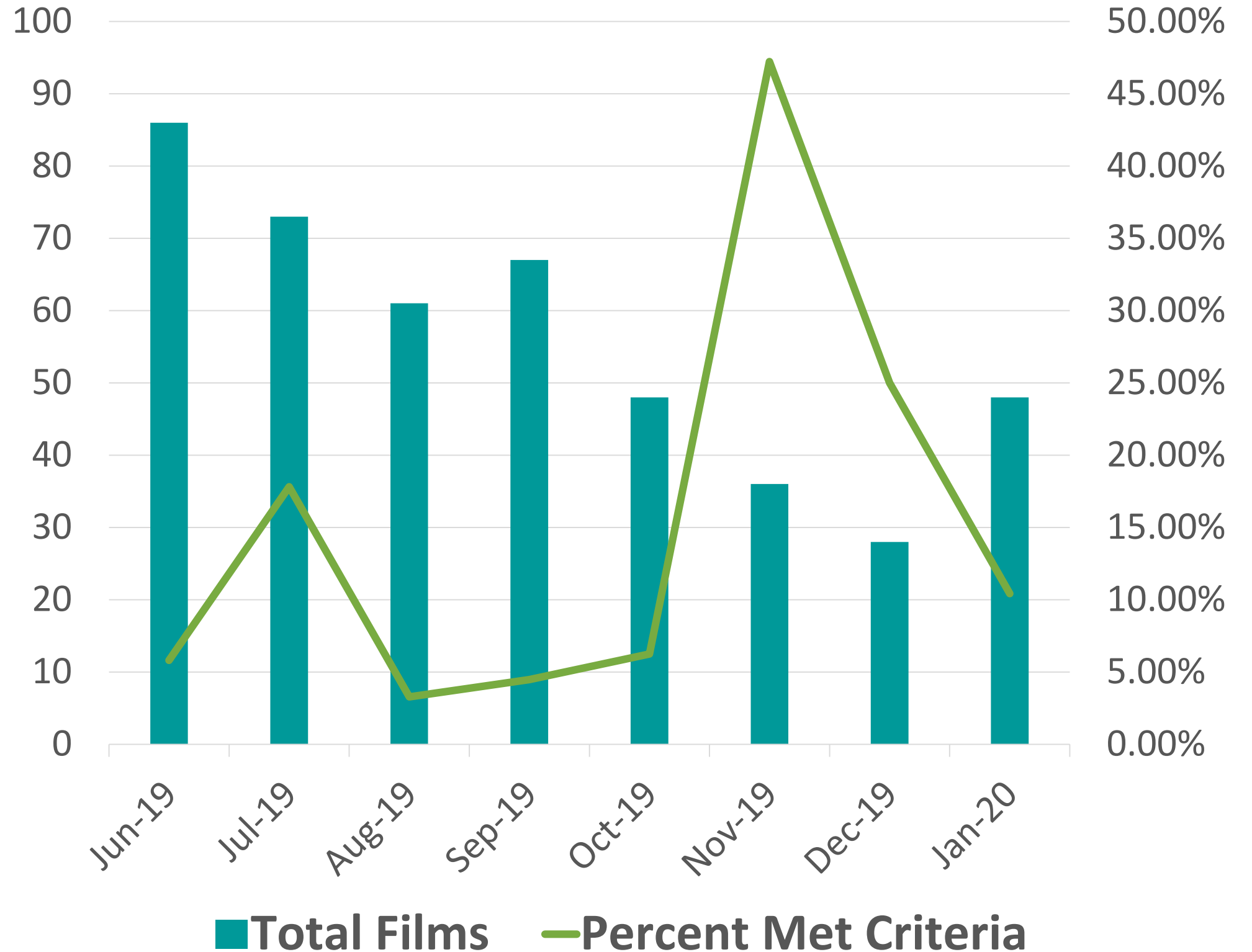
No Red Flags, No RADS!

In the absence of red flags (trauma, or worsening neurological signs and symptoms) imaging is *rarely* helpful for back pain.

- **Decision-making workflow support:** “Best Practice Advisory” cards placed on computer workstations. (*See above*)
- **Conventional x-ray removed from quicklist order set in HER.**

Findings

Trend Chart: Total Radiographs and Percent Appropriate



Key Lessons Learned

- Engage stakeholders early in conversations about overuse.
- Be patient-centric when engaging clinicians: focus on change for patients' benefit.
- Start small and simple, even simple tasks (e.g. identifying high utilizers) have many obstacles.

Next Steps

- Follow up with stakeholders at all levels and celebrate success.
- Use the momentum from this project to address overuse of other radiographic studies in the ED.
- Incorporate learnings from this project into a hospital-wide PI program.
- Present findings at conference and publish in an academic journal.