Background
The University of Texas MD Anderson Cancer Center, located in Houston, is one of the world’s largest comprehensive cancer centers.\(^1\)

Problem
Upon recognition of high perioperative blood transfusion rates in gynecologic oncology, leaders from MD Anderson piloted an overuse reduction initiative, using the Choosing Wisely\(^{2}\) 2013 American Society of Hematology transfusions targets as guidelines.

Solution
Researchers at MD Anderson allotted the first year of their clinical implementation project to data collection. This generous time allotment was established to gather transparent data from a variety of convincing sources, and thus successfully portray the need for a reduction intervention to hospital staff. Data from blood banks and American College of Surgeons National Surgical Quality Improvement Program\(^2\) records illustrated how MD Anderson’s transfusion rates were about double the national average. The researchers presented their data in a variety of settings, ranging from conversations with individual faculty members to formal presentations at larger group meetings. This generated buy-in for improvement from department leaders, faculty members, trainees, advance practice providers, nurses and administrators.

Clinical quality improvement of transfusion reduction focused first on the perioperative population, and later expanded throughout all gynecologic oncology patients. Transfusion guidelines were disseminated to providers and hung in clinical workstations as a daily reminder of appropriate prescribing patterns. Monthly data reviews and compliance deviations were presented at morbidity and mortality meetings. Educational initiatives included small group faculty sessions, grand rounds featuring outside speakers specializing in the harms of blood transfusion and a journal club to research implementation of restrictive transfusion guidelines from other institutions. Project leaders also stressed the benefits of appropriate transfusion, in an effort to avoid telling clinicians to simply stop their current practices. “You can force people to do things and tell them what to do, but you will not make long-term sustainable change unless your team believes that their practices need to be evaluated and altered,” said Lauren Prescott, MD; former fellow in MD Anderson’s four-year fellowship program, which combines a clinical and research focus.

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1 University of Texas MD Anderson Cancer Center
MD Anderson’s implementation project significantly reduced gynecologic oncology blood transfusion rates, including perioperative transfusion rates (24% to 11%) and occurrences in which more than one unit of blood was ordered at a time (48% to 23%). The incidence of surgical site infections in the post-intervention group declined from 65% to 23%. Projected cost savings was $161,112 over the 12-month intervention period. The project leaders published their results in the March 2019 edition of *Gynecologic Oncology*.3

MD Anderson’s quality improvement strategy was essential in generating progressive hospital culture change. Existing system-wide initiatives, including annual faculty retreats, allow members of the department to propose clinical quality improvement projects. Patient care and operations staff aid in the approval and establishment of clinical quality improvement projects, generating buy-in from key faculty members. Ultimately, the impact and sustainability of the *Choosing Wisely* implementation are displayed through continuing monitoring of transfusion.

**Challenges**

- **Receiving buy-in from key players.** To convince clinical leaders that the project was worthwhile, MD Anderson champions dedicated significant time to data collection and education prior to implementing new guidelines.

- **Lack of strict transfusion guidelines in existing order set.** This further emphasizes the need for robust data to alter existing transfusion practices.

**Keys to Success**

- **Generate strong, transparent data.** To convince others that overuse reduction efforts are necessary, MD Anderson suggests allotting significant time to gather quality data. “We spent our first year gathering data and trying to prove that we were outliers in transfusion,” said Dr. Prescott.

- **Involve leadership and utilize existing institutional workflow.** Generating buy-in from clinical administrators, faculty mentors and the department leadership including the chair is essential to implementation. The project champions recognized strength in MD Anderson’s existing clinical improvement foundation, using monthly quality improvement meetings and research retreats as opportunities to present data, educate others and receive feedback.

- **Educate from the base upward.** Implementation leaders spearheaded their educational initiatives with gynecologic oncology fellows, residents, nurses, pharmacists and advance practice providers (nurse practitioners and physician assistants), working their way up to highest-level staff members. “We educated the fellows, residents, nurses and advance practice providers about the safety of blood transfusion, and percolated that up the ladder to the junior faculty, and finally had buy-in from our administrative staff and clinical leadership. Placing emphasis on education ensures that implementation is not rushed,” said Dr. Prescott.

- **Implement clear reduction guidelines.** Newly implemented daily practice guidelines should be publicized so staff members learn of them immediately. To ensure a smooth transition to new guidelines, MD Anderson placed reminders on clinical order sets. “If practices are easy and obvious to follow, it will improve adherence,” said Dr. Prescott.

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4 Interview with Dr. Lauren Prescott. ABIM Foundation. May 2019.