Optimizing our Protocol Management System Data and Aiding Research-Portfolio Decisions through Use of Custom Dashboards
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**BACKGROUND**

- As the medical community continues to embrace digital transformation, it is important that institutions leverage new technologies which optimize real-time reporting and aid research portfolio decisions.
- At Memorial Sloan Kettering Cancer Center (MSK), the Protocol Activation and Human Research Protection Program Unit recognized that data could be utilized for real-time dashboard reporting to aid our review process and to help in the following key areas of interest:
  - Institutional scientific prioritization of research
  - Principal investigator (PI) performance
  - Annual review reporting as mandated by federal regulations
- Additionally, we lacked a way for investigators and their departments to review their individual and cumulative portfolios.

**GOAL**

- • To create Tableau dashboards with real-time visualization of protocol metrics that are already captured in our homegrown institutional Protocol Information Management System (PIMS).
- Utilize metrics to allow investigators and leadership a comprehensive look at our research portfolio, which could help departments streamline resources and aid our protocol review and activation process.

**METHODS**

- After identifying which metrics were the most informative to users, we collaborated with MSK’s Clinical Research Informatics and Technology group to find an effective way to visualize the data.
- To create Tableau dashboards with real-time visualization of protocol metrics that are already captured in our homegrown institutional Protocol Information Management System (PIMS).
- Utilize metrics to allow investigators and leadership a comprehensive look at our research portfolio, which could help departments streamline resources and aid our protocol review and activation process.

**PI Metrics Dashboard (PMD)**

- The PI Metrics Dashboard (PMD) provides reviewers from departmental and PRMS committees with visual aids to evaluate the performance of a PI's active trials, which informs the committees’ review determination. The PMD allows the PI to evaluate his/her own performance and department chairs to evaluate their service’s performance.
- The PMD provides the following PI-specific metrics:
  - Protocol volume
  - Median TTA/TTIA
  - Accrual details
  - Retrospective deviations
  - Monitoring visit deficiencies

**Department/Service Portfolio Dashboard (DSP)**

- • The Department/Service Portfolio dashboard (DSP) allows services to visualize their research portfolio by showing volume at each stage of a protocol’s life cycle, from submission to closed to accrual.
- • Volume is broken down by protocol category (e.g., industrial) and type (e.g., therapeutic) allowing Service Chiefs and Department Chairs a comprehensive look at their active portfolio when managing new proposals.
- • The DSP shows a Year-Over-Year median TTA and TTIA comparison for the service and all MSK.
- • The DSP includes a count of protocols with accrual performance notices issued by our Protocol Review and Monitoring System (PRMS), which can alert leaders of accrual problems.

**FUTURE DIRECTIONS**

- The two dashboards are being rolled out to our research community to allow PIs to self-evaluate and Service Chiefs or Department Heads to assess their own groups.
- We will also explore new ways to integrate the dashboards into the review process to aid institutional committee reviewers in assessing new proposals from PIs and services with extensive portfolios.