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Understanding Core and Supportive Processes

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Prospectus Summary Brief
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Specific Aim: We aim to improve communication and workflow of the Kidney Transplant Team, thereby decreasing the amount of time it takes from "physician referral to kidney transplant list," beginning January 30, 2015 and expected to conclude 9 month later.

Background: Kidney Transplant Services is part of Lee Memorial Health System (LMHS), a non-profit system with four acute care hospitals and two specialty hospitals. The microsystem consists of an outpatient office, employing 13 individuals. The health system identified a lag time from "physician referral to kidney transplant list" and the Director of Kidney Transplant Services was able to offer possible explanations as to why this was occurring.

Supportive data: In 2014, LMHS performed an audit that reveled the efficiency of the Kidney Transplant Team was nearly double that of the national average for physician referral to kidney transplant list. A further assessment by the Lean Transformation Team indicated key issues associated with the delay. The fishbone diagram, Figure 1 found in Appendix A, indicates those issues. The discussion associated with the development of the fishbone diagram revealed communication and workflow to be the biggest factors that inhibit the physician referral to kidney transplant process.

Microsystem Status Relative to the Project: Figure 1 found in Appendix B, the SWOT analysis, indicates the project has more strengths and opportunities than threats. Employee satisfaction is a legitimate threat due simply to change; the director is optomistic that will quickly dissipate once standardization is implemented and they see the efficiency and ease of their work. The project is beneficial to patients, professionals and the health system in terms of patient satisfaction, safety, and efficiency, as well as financial considerations to the system.

Summary of Evidence:

Search Strategies: The references used support the project and its assertion that communication and workflow will reduce the time is takes from physician referral to kidney transplant list. With search words/phrases including "communication," "workflow," "kidney transplant," and "staff satisfaction," articles were obtained ranging from 2012-2015.

Databases Used: PubMed, CINAHL, and Ebscohost with full text.

Evidence:

Benfield et al. (2015) claim evidence supports the use of lean principles in healthcare delivery by identifying waste and shifting workflow, thereby initiating cost savings.

Gocsik & Barton (2014) assert that anytime "workflows are examined in depth, we inevitably discover areas of improvement" (p. 197).

Keenan et al. (2012) assert that examining information flow is "a vital component of a patient's care and outcomes."

Kirkley et al. (2004) "demonstrate how organizations can leverage IT to support nursing excellence, and focus on successful nursing and IT practices" (p.95).

Sockolow et al. (2014) assert that Nursing Information Systems (NISs) "have the potential to improve the process of obtaining patient history and care planning and to increase nursing documentation completeness, reliability, and availability," improving communication and workflow (p.25).

Pearce (2015) asserts the "importance of teamwork, effective communication, and collaboration during all phases of patient care," and in order to accomplish this, "team cohesiveness, trust, and open communication are necessary."

Theoretical Direction: Lewin's change theory allows insight into how to effectively implement change in regard to communication and workflow. Lewin identifies three stages of change, unfreezing, moving or transition, and refreezing. Mitchel (2013) asserts that when staff are made aware of a need for change through Lewin's theory, "the problem is identified and, through collaboration, the best solution is selected" (p. 33).

Stakeholders: Patients and families, the Kidney Transplant Team (professionals), LMHS, the Lean Transformation Team, and the Director of Kidney Transplant.

Business Case: Improved communication and work flow has the potential to increase the number of patients evaluated by the kidney transplant team by 32 patients per year or just under three patients per month. This will offer a revenue increase, as well as a reduction in admissions to the health system, for a total of $274,000 in net savings. Qualitative benefits include patient satisfaction, employee satisfaction, and shared governance through the implementation of lean processes.

The project includes a contribution by the CNL student that consists of 220 hours at $35.42 per hour, totaling $7,792 for this segment of the project. This includes work directly related to the project such as research for evidence based practice (EBP), attending meetings within the healthcare facility, and reviewing quality improvement data. The remainder of the student portion of the project will cost $21,535.

After subtracting the initial start-up costs to the system including education, and student and employee expenses, the system is expected to save a total of $98,672 the first year. Each additional year will save the system $188,000.

Methods: All kidney transplant professionals gathered with the Lean Transformation Team to begin process mapping, identifying current practice by all members. The team

discovered a break-down in communication and workflow contributing to the prolonged physician referral to kidney transplant list process. Meetings were held, problems identified, and the decision was to focus on standardization. The focus on standardization includes task alignment among professionals, organization of current charts, communication and goal of electronic charting.

Steps for Implementation: The Gantt Chart, Table 1 found in Appendix C, indicates the timeline for the project. The Lean Transformation team began meeting during the winter of 2014 and will continue to guide the improvement process. In order to align tasks among professionals, process mapping to support a PDSA regarding standardization began in the spring of 2015. The implementation phase begins during the summer and coincides with role optimization. The project will be ready for evaluation during the winter of 2015.

Evaluation: A random audit performed by LMHS will determine if the standardization efforts have been successful in reducing the time from referral to transplant list. Additional review of the kidney transplant member role development will be done by the director of the kidney transplant team.

Results: Thus far, the timeline remains on track but is subject to change. Due to the early roll-out of the EMR, it is unlikely the timeline will remain on target. At present, organization of current charts is in progress and communication among individuals remains open during this exploration phase.

Outcomes: The true value of this project remains to be realized. The evaluation process is still set to occur during the winter of 2015.

Recommendations: It is recommended the project timeline be extended from 9 months to twelve months due to the EMR implementation. Although this was an anticipated occurrence, its timing was not. Therefore, it is recommended the project be put on hold to effectively fix the initial problem, communication and workflow. The implementation of the EMR may require additional education and training but will benefit the issue of communication and workflow in the upcoming segments.

Appendix A
Fishbone Diagram

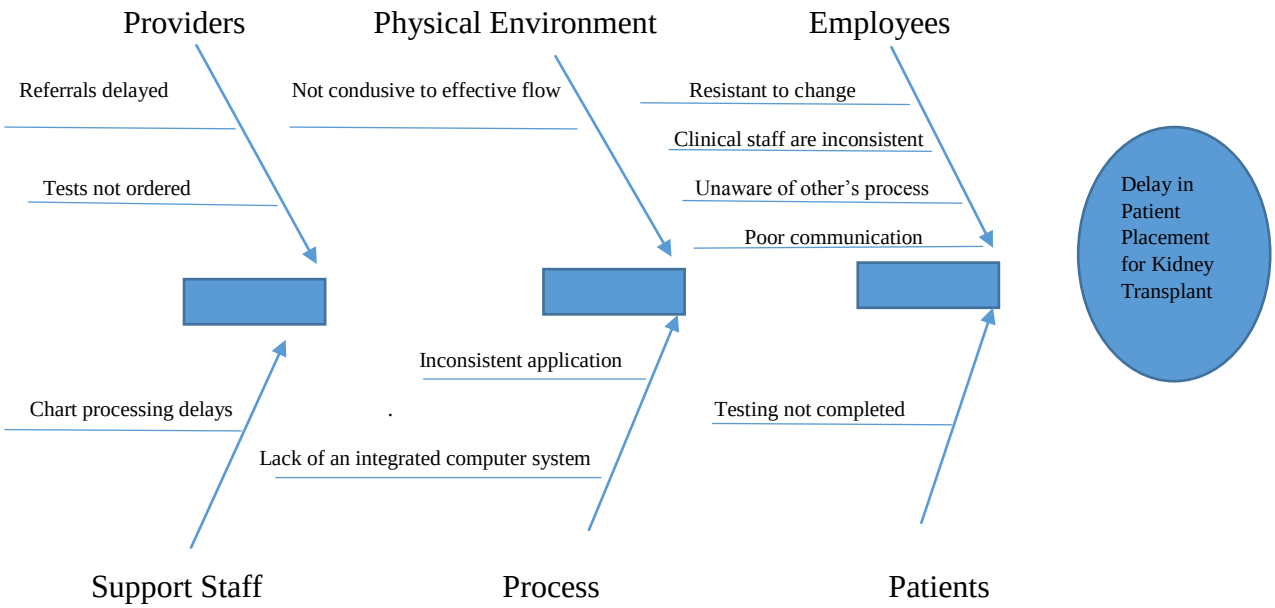

Figure 1. Fishbone diagram. This diagram indicates the issues identified as possible barriers to efficient workflow and communication.

Appendix B
SWOT Analysis

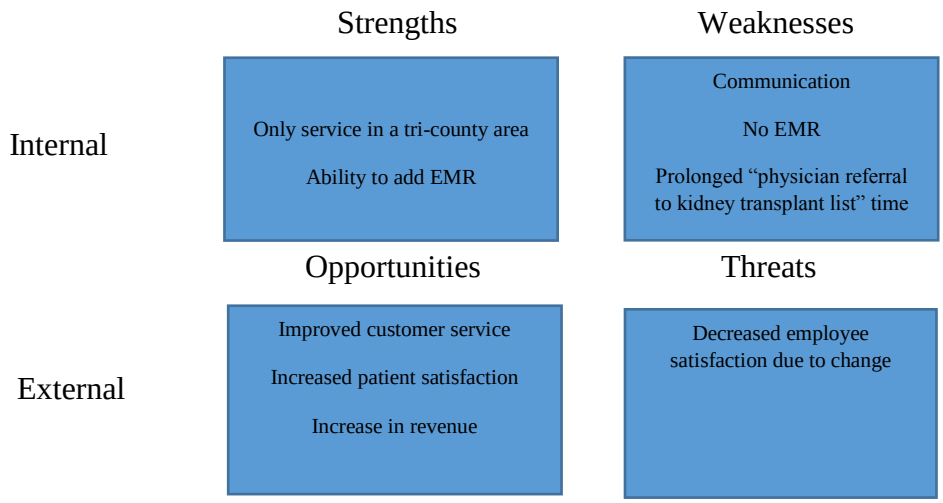

Figure 1. SWOT analysis. This analysis depicts the strengths, weaknesses, opportunities and threats associated with the prolonged physician referral to kidney transplant list process.

Appendix C
Kidney Transplant Services
None-month Improvement Strategy

Table 1.

Kidney Transplant Services nine-month improvement strategy

Action		Responsible	Winter '14 Spring '15 Summer '15 Fall '15 Winter '15
Organize and conduct meetings		Lean Transformation Team	
Process mapping, create PDSA		Lean Transformation Team and Kidney Transplant Team	
Implement standardization		Kidney Transplant Team	
Optimize roles		Director of Kidney Transplant Services and Kidney Transplant Team	
Evaluation of processes		Director and Team	

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