New Patient Process Documentation at Children's Cancer Hospital Egypt (CCHE) and Recommendations for Improvement

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Host Organization

- The Children's Cancer Hospital Egypt-57357 (CCHE) is the largest specialized children's cancer hospital in the world. The hospital was built in 2007 and is being sustained completely by donations through its fundraising non-profit, the Children's Cancer Hospital Foundation
- This 320-bed state of the art hospital provides free services for children with cancer from Egypt, Africa, and the Middle East

Background



- The Global Health Initiative (GHI) at Dana-Farber/Boston Children's (DF/BC) focuses on countries with limited resources and working with them to improve outcomes for children with cancer
- This project aims to study the new patient process at a pediatric oncology hospital in a low-income country and provide recommendations for improvement by using Lean Management – Six Sigma techniques as well as expand the existing collaboration between GHI and CCHE

Objectives

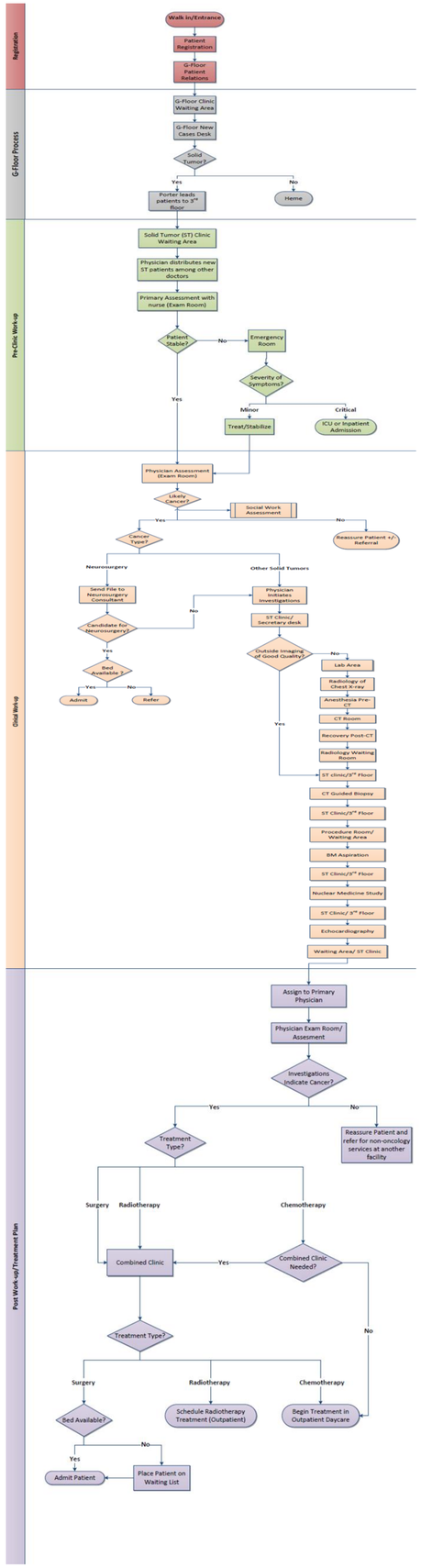
- Apply Lean Management – Six Sigma tools to
  - Define the new patient process
  - Collect data on the new patient process
  - Study the patient flow
  - Analyze the process and identify root causes
- Use and incorporate the DF/BC Quality Improvement policies and toolkits
- Spend 3 weeks onsite at CCHE in Cairo, Egypt to define the new patient process, collect data and study the patient flow
- Suggest concrete, measurable, and actionable recommendations for improvement

Methods

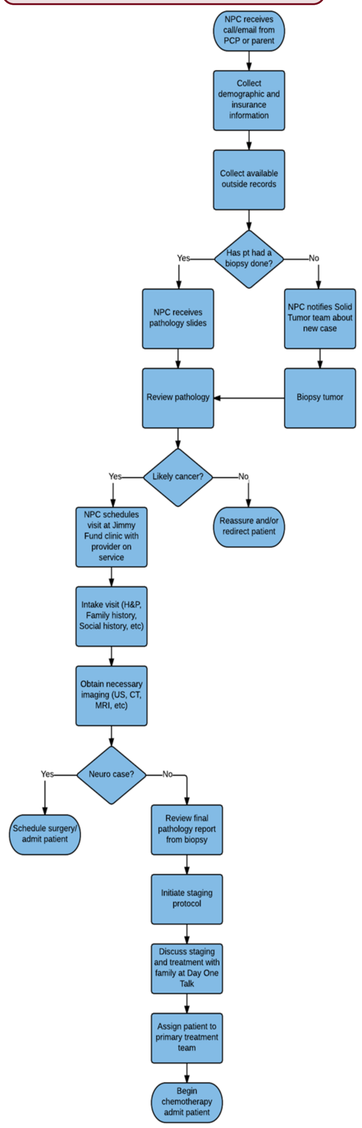
- Traced new patient process for solid tumors at DF/BC
- Analyzed Egyptian healthcare system
- Reviewed hospital utilization data at CCHE
- Traced new patient process for solid tumors at CCHE and created outline of process flow
- Interviewed key departments at DF/BC and CCHE to review process flow and identify current strengths and challenges
- Drafted preliminary recommendations for improvement and presented them to CCHE team
- Returned to DF/BC to finalize report and continue training in Lean/Six Sigma White and Yellow Belts

Key Findings

New Patient Process Flow at 57357



New patient process flow at Dana Farber



Key Recommendations

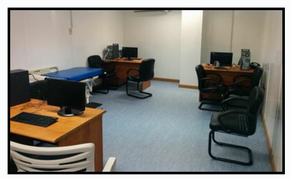
1) Create a written registration protocol from Arabic to English translation for patients' names
2) Involve more medical staff in separation of cases (i.e., solid tumor vs heme)
3) Complete the primary assessment of new patients earlier (before case separation) via the primary nurse
4) Create separate primary assessment rooms for new patients
5) Mandate the use of barcodes on all patient files and cards
6) Create structured scheduling process for new patient when they return for initial investigation(s)
7) Create New Patient Coordinator (NPC) position
8) Include all outside records in patient's EMR system
9) Utilize video/audio resources to help direct patients
10) Create team based Family Meeting with patient and various arms of the process after confirming the diagnosis

Table 1. Matrix of Top Five Recommendations Using 1-4 Feasibility Score 1= Lowest Feasibility 4= Highest Feasibility

Criteria/ Recommendation	Impact on Patient	Economic Cost	Perceived Attitude from Staff	Urgency	Estimated Total Feasibility
New Patient Coordinator	3	2	2	3	10
Involving More Medical Staff	3	4	1	3	11
Including Patient's Records in EMR System	2	4	3	2	11
Separate Rooms for New Patients	4	1	3	4	12
Structured Scheduling Process	4	4	3	3	14

Outcomes

- CCHE decided to relocate all new patient screening at a New Patient Clinic in a building attached to the hospital. This new clinic is scheduled to open in April 2016 and will house the new patient process for all patients
- This clinic was established to meet the high demand of the hospital, optimize triaging, and improve the new patient process
- In addition this clinic will serve as a filter clinic in order to identify those with the highest risk of cancer and focus on them



New Patient Clinic at CCHE

Next Steps/Conclusions

- Undergo further studies in Lean/Six Sigma at DF/BC
- Draft manuscript in conjunction with DF/BC and team members at CCHE
- Finalize report and submit results to CCHE
- Give presentation to GHI DF/BC

Acknowledgements

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