PROJECT
PLAN-HARMONIZATION OF IV PUMPS

Group 4

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Project plan-Harmonization of IV Pumps

Project plan

Project name	Harmonization of practices linked to the administration of IV medication
Client / Sponsor	The Director of Nursing and the Pharmacist-in-Chief.
Project manager	Maggie and Nicole

Executive summary

This project is to be executed in Canada and is supposed to be the baseline for how the project is to be managed, what the project consists of for activities and what can happen during the execution of the project. The IV pumps are the main objective of the project and the implementation and usage of it is what this plan consists of. To reach the goal and purpose of the project a plan which takes into account the situation, stakeholders, activities, budget, risk, communication, rolls in the organization and much more to ensure that the project is successful and that enough knowledge about the project is acquired to be able to reach the end in a swift manner.

Background, purpose and goal

Background

IV pumps are used in many practices within the health sector and currently there are many different types of pumps used in different hospitals. In addition, to this there are issues with trying to find the pumps when they are needed as they are not easily accessible. To be able to offer better care for the patients in Canada there is a need to harmonize the usage of IV pumps as well as provide the best pumps considering technological characteristics. As there will be a renewal of the pumps, safety is a concern that needs to be addressed and explored as well as the management of the pumps. This project will address the issues found with the IV pumps to increase the business value by decreasing

the stress, decreasing infection risks, lowering time the workers are doing non-related work, for example, the workers will not need to spend time searching for pumps. Also if there is a better management of the pumps one will be able to lower the tension between workers as they no longer have to fight for the pumps as well as creating an inventory making sure that the pumps are not lost and can be repaired if issues are found. It can also lead to less expenditure on pumps as one has to continue paying to try to fix the issues of missing, non-functioning and inadequate pumps.

Purpose

The purpose of the project is to improve the quality and safety of patient care related to the administration of IV medications.

Goal

The goal is to harmonize all the practices related to the administration of IV using state of the art technology as well as decide which pumps are to be used at the sites by July 2014.

S=The pumps at the sites are the main focus and the implementation of them show exactly what the project needs to achieve

M=Yes, you can check how many of the sites have adopted the pumps and the usage of them and what pumps have been chosen

A=Yes it is achievable/acceptable as all the involved people have decided on how the project should be completed

R=There is time and money to be able to achieve if no deviations from the plan

T= By July 2014, yes there is a time limit

Project Scope

Scope

The scope of this project is to achieve the goal and purpose which is to harmonize the practice of the IV pumps and which IV pumps are supposed to be used. Only IV pumps are included in this project and pumps such as PCA pumps will not be included as well as the call for tender for MHC is not to be included in this project. The budget given which is 9

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million Canadian dollars should be used for all the costs of the project which include equipment, to educate the users, deploy the pumps and the support that is needed. The harmonization of the pumps at all sites must be achieved in this project as well as to pick the new pumps which will be used at the sites and make sure that the criterias for the pumps are met.

Requirement specification

Product specification

IV therapy that can be implemented across the MUHC.

- Improve the level of patient care associated with the delivery of intravenous medications by enhancing quality and security measures.
- Improved and synchronized methodologies that aid in mitigating medication errors.
- Enhancing the accessibility of appropriate training to pump users.
- Accessibility of clean and functional IV pumps when needed.
- improved caregiver satisfaction while efficiently utilize human resources.
- Demonstration of successful cross-functional and cross-departmental cooperation.
- Efficient pump management system, that helps to reduce expenses associated to continual crisis management because of pump shortage

Project specification

- Engaging in the harmonization of IV practices should take place prior to the inauguration of the new Glen site, before 2015.
- A Budget has been locked for the purchase of new equipment such as IV pumps
- Acquiring new pump technology to support the coordinated IV practices.

Prerequisites

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To ensure that the execution and the result are achieved it is expected that the project owner has control of the project throughout the project's course as well as being available at times so that the communication is efficient and decisions can be made swiftly. This means that the project owner is updated on the project so that the decisions can be made with the knowledge and information needed to minimize the risk of making the wrong decision. The knowledge of the risks is also important to make sure that the project can be finished. The most important part of this is the communication and cooperation of the sponsors and the stakeholders to make sure that the different scenarios and situations that can happen are dealt with in the best possible way. The user assessment is also a vital part of the project and they need to inform all the other people involved in the project so that it can help with the decision-making.

Handover and implementation

The project is supposed to deliver which pumps are supposed to be used and decide which pumps are to be introduced to make sure that issues that can be currently seen with the usage of the pumps can be solved. However, just deciding which pumps are supposed to be used is not enough, as you need to make sure that all the workers know how to use the pumps in a proper way. Having the best technology does not matter if you do not know how to use it. With proper education about the pumps you can save time since the workers will not need to ask for help at all times as well as give the confidence to the workers that they can use the new equipment. By managed, it is meant that the hospital can have control of the pumps so that the issues that were prevalent before the project do not occur again. For example before there was little to no control on the inventory and the nurses had to search for the pumps. Now when delivering the pumps a system to control the pumps and the inventory will prevent the same issues from occurring again. Here you need to let people know how the system of management is controlled so everyone follows the rules. It is also important that the pumps can be used in the hospital. It is mentioned that wifi is not available in other hospitals and therefore it is important to make the wifi available if the smart pumps are chosen. Additionally, the results of the project need to be known to all the people that will be interacting and using the pumps to know how they are supposed to be managed and used. For example the IT department needs to know how they connect, the repair people need to know how to fix them, the workers need to know how to use them and everyone needs to know how to log the usage of the pumps.

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Situational analysis and stakeholders

SWOT-analysis

Strengths	Weaknesses
S1 A project manager that is a nurse and has leadership skills and workers that are experienced in project management S2 A clear purpose and goal which leads to high motivation S3 There are many expected benefits S4 A specifically dedicated unit for the harmonization	W1 The project involves many actors and stakeholders which can make things more complicated W2 A budget that is not clearly established W3 There is a tight timeplan for the project
Opportunities	**Threats**
O1 As this project is set to make a big change they have the opportunity to decide how this will go	T1 The new pumps might use technology that is not yet widely established so there is not much experience T2 Some decisions need to be made at Ministry level and therefore if the Ministry does not agree issues can be created

Conclusions

S1 + S2+ W1 + W3 Handle the complex organization of the project and the lack of time by having experienced project managers that can together with motivated workers still achieve the goal. This is handled by the organization.

O1 + T1 Use the opportunity that you can create a whole new system by adapting the environment so that the technology is fit, done by looking at the activity plan and requirement specification to make sure they are reached.

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W3+T2+S4 The timing is limited and if the Ministry causes a delay there can be issues for the project but using the TSO they can closely monitor all actors and therefore keep the project on track. This is done by looking at the communication plan.

S3 + O1 There many expected benefits for the project and using the possibility to almost completely decide how to reach these benefits one can easily reach the benefits and actualize them. Handled by the activity plan.

Stakeholders

Stakeholder mapping	
<u>Core stakeholders</u>	
Quebec Government	In this case, the government of Quebec is the owner of the entire large project, which is the modern "healthcare facility". The interest of the project for them lies in creating a hospital with a good service for residents. These stakeholders care most about the results of the entire project and they are important because they own the results and the general budget for the project.
The steering group	The steering group has great influence on the project when they review the project and if the review gives a negative result, it can lead to them hindering the project's continuation. In order to manage their interest, it is important to make sure that they are present at the meeting and that the necessary information about the project reaches them.
Project manager(s):Maggie,Nicole	Project managers have a great influence on the progress of the project, they are responsible for planning the project and their interest lies in directing the work of the project so that the objectives of the project are reached. The project manager functions as a link between the project group and steering and therefore it is important that they have good communication with both steering and owner.
Project group: Pharmacy, Nursing,Biomedical,Infection Control, Quality risk and performance	The project group is an important part of projects, without this group results will not be achieved. Much of the activity is carried out by the project group and therefore it is important that they receive continuous training and a suitable workload.
<u>Primary stakeholder</u>	

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Finances	Finances have an impact on projects' budgets, their interest lies in winning from various investments. Therefore, it is important that they receive the necessary information about the project so that the right investments can be chosen.
Logistic	Logistic effects workflow, if any problem arises with them then it can lead to delays in the project, it is therefore important to ensure that all orders of the necessary goods are made on time, and it is important to have good communication and relationship with different suppliers .
Employees: Anesthetists, Respiratory therapists	Employees are the ones who will be affected by the results, it is therefore important to include them in the project and know their opinions, as it is important to have them as references and it is important that they are satisfied with the results.
<u>Secondary stakeholders</u>	
Patients	It is important to patients that the results meet their needs, otherwise the project may have a negative image
Union	Union focuses on various labor agreements, therefore it is important that working conditions are good and that all workers and participants are satisfied, otherwise they will result in various problems that can lead to the project being delayed in the worst case.

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Organization and roles

The organizational structure for the project consists of three general operational levels which themselves are divided into sublevels in accordance to their authorial level and responsibilities. The three levels are composed of a senior management, the project management team and workgroups structured in a hierarchical manner. The project management team consists of Suzan as the project director, Maggie as the project manager with the help of Nicole who she manages together with Kim and Gilbert. Nicole works as a clinical practice consultant (helping Maggie managing workgroups) while Kim and Gilbert work within director and chief-roles.

(See OBS-diagram in appendix.)

Senior management

The senior management has the highest form of authorial power consisting of two committees representing the executive and operational power within the project. Senior management has a definitive role through its role and authority of making well founded decisions. The executive committee has the role and responsibility of making decisions based on the operational committee's insights about harmonization of the project processes.

The project management team

Suzan’s role as project director, head of TSO, is to help the project management team to connect with the senior management, having a more strategic and communicative role between the definitive and operational organs within the management structure. Her main role is to give support to the project management team through connecting with senior management and putting forward their ideas. Her responsibility can be described as being an extension towards the senior management for the project management team since she has a higher authorial level.

Maggie’s role as project manager is to use her insights, as a former associate director of nursing respective clinical and professional staff developments services, to make the project plan and governance structure for the project. She has responsibility of managing the project structure, workgroups as well as her subordinates Nicole, Kim and Gilbert. She manages the project through the workgroups which she has responsibility over. This she does with the support of a clinical practice consultant, Nicole, as well as Kim and Gilbert.

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Nicole's role as a clinical practice consultant is to assist the project manager, Maggie, through her insights in project management. Nicole has responsibility over two workgroups: "IV pump evaluation group" and "Harmonization of practices group". She has the same authorial level as Kim and Gilbert of helping Maggie manage the project through coordinating and controlling the given project plan.

While Maggie has authority and responsibility over the operational workgroups (i.e education, pump implementation and process- workgroups), Nicole manages the more project general workgroups which handle the project evaluation process and harmonization. Thus their authority and responsibilities are bound by their insights and respective roles as project manager (with expertise within the given departments) and clinical practice consultant (with expertise within project management).

Kim and Gilbert's roles within the project management team as sponsors is the same but for different departments. They have the same role, authority and responsibilities but over different departments. While Kim has the responsibility to delegate and coordinate the nursing department, Gilbert has the same responsibilities over the pharmacist department.

Workgroups

The workgroups execute the given management directives in accordance to the project's objectives.

The staffing plan

<u>The project management team</u>

Project director: Suzan

Project manager: Maggie (incl. Nicole)

Clinical practice consultant: Nicole

Director of nursing - Sponsor: Kim

Pharmacist in chief - Sponsor: Gilbert

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Steering Committee

Director of Nursing - Sponsor: Kim

Pharmacist-in-Chief - Sponsor: Gilbert

Director of Biomedical Department: No name

Director of Purchasing: No name

To be named, IT/IS Department: No name

Clinical lead pharmacy: No name

Clinical lead and Assistant to the Director of Nursing: No name

Associate Director, Quality, Risk, and Performance: No name

Purchasing sector of Finances Department: No name

Project Manager: Maggie

Clinical Practice Consultant (TSO): Nicole

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Communication

Reports and documents

A project plan where milestones, timelines and responsibilities are included. The plan should be regularly reviewed and updated if so needed.

Regular meetings with the project team and stakeholders should be conducted to discuss the progress and potential of roadblocks. Additionally regular progress reports and updates should be sent via email. The reports should include an overview of progress, issues, risks, and key performance indicators.

Communication plan

Who	Why	What	When	How	Responsible
Drug library sub group	Ensure that everything is up to date.	Developments or changes.	Weekly	Reports and meetings	Project manager
Education sub work group	Programs up to date and accurate	Feedback,concerns received from targeted groups.	Once a month	Via meetings, reports or email.	Project manager
IV pump implementation work group	Ensure that pumps are correctly programmed.	Changes or updates to the drug library	Whenever needed.	Email	Drug library sub group
IV pump centralized process group	Necessary adjustments to the process	Drug library and IV pump	Weekly	Email and meetings	IV pump implementation action work group.

		implement ation			
Project group	Planning working hours	Activities that must be performed	At the start and then continuous ly	Meetings and mail.	Project manager
IV pump evaluation workgroup	Implement ation meeting the goals?	Progress and results.	Weekly	Meetings, emails and progress reports.	Clinical practice consultant
Harmonizat ion of practices workgroup	Necessary adjustmen ts or modificatio ns	Updates/c hanges related to the IV pump implement ation	Weekly	Meetings, email and progress reports	Clinical practice consultant
Project manager	Project progress	Resources used and work performed	Weekly	Meetings and reports	Project member
Project owner	Will the project achieve its goals ?	Project status	When needed	Reports, steering committee meetings	Project manager
Harmonizat ion of IV practices steering committee	Will the project produce the desired benefits as intended?	Project status	When decided	Steering committee meetings and when needed	Project manager
Stakeholde rs	Accountabi lity	Progress, budget and resources	biweekly	Status reports, mails and meetings.	Project manager

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Milestones

Milestone plan

Order of Milestone	Description of Milestone
1	Completed needs assessment
2	Chosen and validated scenarios
3	Selection criteria chosen and validated as well a the call for tender needed
4	Choice of equipment and validated
5	Detailed implementation plan for the three asp
6	Established targets met
7	Quality indicators reviewed, transfer to daily operations completed, and IV pump decision making

Activities

Activity list

ID	Activity	Resources	Start	Stop
A	Create a needs assessment	Director of Nursing and Sponsor Pharmacist-in-Chief and Sponsor Director of Biomedical Department Director of Purchasing Clinical lead and Assistant to the Director of Nursing Associate Director, Quality, Risk, and Performance Project Manager	January 2012	End of June 2012

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		Clinical Practice Consultant (TSO)		
B	Identify practices that need harmonization	Clinical lead pharmacy Clinical lead and Assistant to the Director of Nursing Associate Director, Quality, Risk, and Performance Project Manager Knowledge broker Clinical Practice Consultant (TSO)	End of June 2012	15 Juli 2012
C	Administer intermittent IV medication and create model for continuous infusions	Director of Nursing and Sponsor Pharmacist-in-Chief and Sponsor Director of Biomedical Department Clinical lead pharmacy Project Manager Clinical Practice Consultant (TSO)	15 Juli 2012	10 August 2012
D	Create pump management model	Associate Director, Quality, Risk, and Performance Project Manager Clinical Practice Consultant (TSO) Process expert (IV pump management workgroup) Change management expert Clinical practice consultant	10 August 2012	End of August 2012
E	Create a criteria for the IV pumps	Director of Nursing and Sponsor Clinical lead pharmacy Clinical lead and Assistant to the Director of Nursing Purchasing sector of Finances Department Project Manager Clinical Practice Consultant (TSO) Process expert (IV pump management workgroup) Change management expert	Beginning of September 2012	End of September 2012
F	Decide what equipment will be used	Director of Purchasing Clinical lead and Assistant to the Director of Nursing Associate Director, Quality, Risk, and Performance Project Manager Clinical Practice Consultant (TSO)	End of September 2012	10 December 2012
G	Plan how to harmonize the IV practices	Project Manager Clinical Practice Consultant (TSO) Knowledge broker	10 December 2012	End of December 2012

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H	Plan the pump logistics	Project Manager Process expert (IV pump management workgroup) Change management expert	Start of January 2013	25 January 2013
I	Decide how the deployment and communication will occur	Director of Nursing and Sponsor Pharmacist-in-Chief and Sponsor Associate Director, Quality, Risk, and Performance Project Manager Clinical Practice Consultant (TSO) Knowledge broker	25 January 2013	Start of February 2013
J	Operationalization of the plan	To be named, IT/IS Department Clinical lead and Assistant to the Director of Nursing Associate Director, Quality, Risk, and Performance Purchasing sector of Finances Department Project Manager Clinical Practice Consultant (TSO)	Start of February 2013	End of Mars 2013
K	Deploy the pumps	To be named, IT/IS Department Clinical lead and Assistant to the Director of Nursing Associate Director, Quality, Risk, and Performance Purchasing sector of Finances Department Project Manager Clinical Practice Consultant (TSO) Process expert (IV pump management workgroup) Change management expert	End of Mars 2013	Start of June 2013
L	Follow-up on the harmonization	Director of Nursing and Sponsor Pharmacist-in-Chief and Sponsor Director of Biomedical Department Director of Purchasing Clinical lead and Assistant to the Director of Nursing Associate Director, Quality, Risk, and Performance Purchasing sector of Finances Department Project Manager Knowledge broker	End of October 2013	End of December 2013
M	Train workers to use the new pumps	Project Manager Clinical Practice Consultant (TSO) Process expert (IV pump management workgroup) Change management expert	Start of June 2013	End of October

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N	Test the project out (pilot project)	To be named, IT/IS Department Clinical lead pharmacy Clinical lead and Assistant to the Director of Nursing Knowledge broker Associate Director, Quality, Risk, and Performance Project Manager Clinical Practice Consultant (TSO)	End of October 2013	End of December 2013
O	Full-scale implementation	Director of Nursing and Sponsor Director of Biomedical Department IT/IS Department Associate Director, Quality, Risk, and Performance Project Manager Clinical Practice Consultant (TSO)	End of December 2013	End of february 2014
P	Monitor the impact the pumps have	Associate Director, Quality, Risk, and Performance Project Manager Clinical Practice Consultant (TSO) Evaluation consultant	End of February 2014	End of May 2014
Q	Review quality indicators	Project Manager Associate Director, Quality, Risk, and Performance Clinical practice consultant (TSO) Evaluation consultant	End of February 2014	End of May 2014
R	Overview of the pumps	Director of Nursing and Sponsor Pharmacist-in-Chief and Sponsor Director of Biomedical Department Director of Purchasing Clinical lead pharmacy Clinical lead and Assistant to the Director of Nursing Associate Director, Quality, Risk, and Performance Project Manager Evaluation consultant	End of May 2014	Start of July 2014

Schedule / Bar chart

Milestone	Activities	Duration (Days)

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1	A	179
2	B,C	40
3	D,E	110
4	F	10
5	G,H,I	51
6	J,K,L,M,N,O	390
7	P,Q,R	96
Total	18	876

CPM:

Critical Path=A C E F H I J K L M O Q R

Not Critical Path= B D G N P

P latest start 732, N latest start 605, G latest start 309, D latest start 274, B latest start 259

PERT:

Estimated Max=1000

Estimated Minimum=876

T expected=938

S=20.7

V=427.1

Project budget

The budget has not yet exactly been determined but it was estimated at CAD$3 million over the first year and up to CAD$9 million.	
Internal costs	Purchase of equipment Education and deploy Professional support to implement

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	Purchase smart pumps and syringe pumps: CAD$6 million Salaries for all employees Payments to the suppliers
External costs	Inefficient use of human resources. Increase of infection risks and medication errors. Negative impact on quality of patient
Other costs	Buffer
Summary=	Estimated budget= CAD$9 million

Risk analysis and response planning

Risk	Probability 1 to 5	Impact 1 to 5	Risk value = P * I	Risk Response
Gap between the chosen scenarios and the user needs	3	3	9	Risk avoidance: ensure that the entire project group understands the user needs,perhaps it is good to hand out questionnaires to workers and patients for a better understanding of their needs
Inability to put in place the needed infrastructure to support the full use of the smart pump safety features	4	4	16	Risk mitigation: try to always be one step in advance, make sure that the skills needed are available and that deliveries arrive on time.
Absence of allocated budget post implementation to ensure daily operations	3	5	15	Risk avoidance: negotiate well with the sponsor so that they accept a reasonable budget so that it is enough. As well as the importance of keeping track of

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				the bid and a buffer should be available.
Absence of a department willing to take on the management and upkeep of the IV pumps	2	4	8	Risk mitigation:through recruitment or good training. Try to agree with the needed department in good time and an agreement can be a good guarantee.
Lack of coordination between related projects such as equipment, harmonization of IV practices	2	3	6	Risk avoidance: plan activities with regard to resources, ensure that the different project groupers have good communication between each other and that everyone is aware of how activities relate to each other, a buffer can also be good to have.
Absence of full-time dedicated resources to the project	3	4	12	Risk avoidance: have different options to choose from, so that you are not dependent on just one option, make sure that communication is good between the various people involved in the project and that there is a buffer.
The environment is not adapted to support the smart pumps	4	5	20	Risk mitigation:try to have non-smart pumps in case there are problems with them. Risk avoidance: try to have a stable internet connection in the exact area where the smart pumps are to be, and try to have different choices between internet providers

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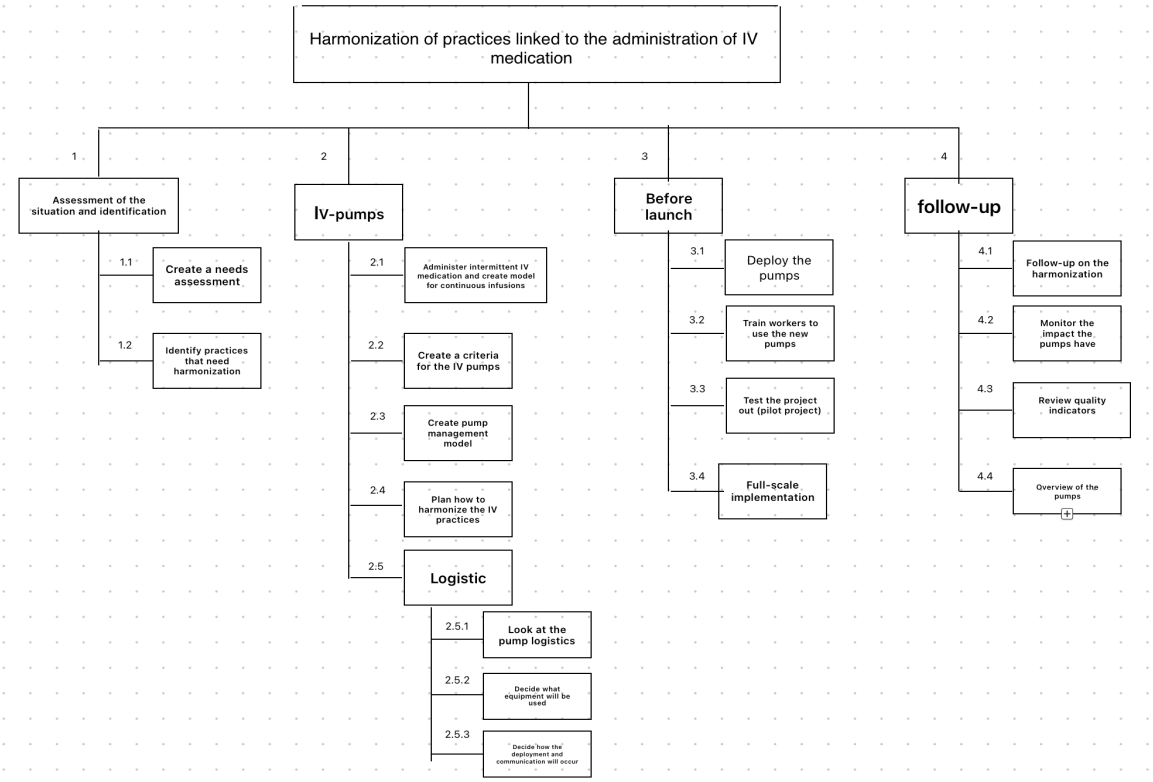
Appendixes

WBS



SWOT

Strengths	Weaknesses
S1 A project manager that is a nurse and has leadership skills and workers that are experienced in project management S2 A clear purpose and goal which leads to high motivation S3 There are many expected benefits S4 A specifically dedicated unit for the harmonization	W1 The project involves many actors and stakeholders which can make things more complicated W2 A budget that is not clearly established W3 There is a tight timeplan for the project

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Opportunities	Threats
O1 As this project is set to make a big change they have the opportunity to decide how this will go	T1 The new pumps might use technology that is not yet widely established so there is not much experience T2 Some decisions need to be made at Ministry level and therefore if the Ministry does not agree issues can be created.

Clarifications of the different strengths, weaknesses, opportunities and threats.

For the S1 having experienced workers can make or break your project, especially this project as it is limited in time and is supposed to create big changes and has many activities and units that are supposed to work together. Having a leader that clearly shows their leadership skills is vital as this will motivate the people involved and might then perform better. Additionally, Maggis is a nurse so she has understanding of how the nurses see the problem and can therefore have understanding that other leaders would not have. This means that with the extra knowledge she has she can be seen as an important asset in the project as well as the other workers which are experienced in project management.

S2 shows that this project is specified and has clear goals and this means that it is much easier for the workers to do their job and that everyone knows what needs to be done. The project is also needed as there are issues within healthcare with the pumps. This will then motivate the workers as well since they can see the need for the project and how it will impact the healthcare IV pump system.

S3 The fact that the project has many expected benefits can be used both as motivation which is mentioned above but also be used when negotiating the budget as one can use this to appeal to the sponsors if the project needs more money. The benefits also increase the support for the project and if there are any threats one can use the benefits to defend the project.

S4 Having a unit that is specifically made to try to harmonize is very important as without it it will be very hard to communicate with each other and if there are issues one can find the people responsible much quicker and easier. Without this unit it could be hard to have control of the project and it could very easily lead to deviations from the plan if you do not clearly state who is in charge.

W1 The harmonization of the IV pump includes many stakeholders and actors and this means that there needs to be clear communication between everyone for the project to run smoothly, without the communication mistakes and misunderstandings that can happen that

will have a negative impact on the project. Additionally, making decisions can be much more difficult as there are many different people who need to agree and you need to satisfy many people. Even though it is good with input from everyone this will slow down the project and the project does not have leisure when it comes to the time.

W2 The budget for the project is not based on highly reliable information and therefore this can cause issues further on in the project's course. It can cause delays as you might not have enough money and have to delay activities till you have the funds to continue. It can also mean that you have to reprioritize and only perform something, meaning that you have to compromise which one always has to do but this might reach the edge and cause problems.

W3 Due to the contracts for the pumps almost running out there is not much room for delays and things that disrupt the schedule as you will need the pumps, there is no way to keep the patients waiting for the pumps. There is not much of a buffer and there is a lot to do. Ideally the project would have been started earlier so that there is a buffer to compensate for any delays but as it seems this is not possible. This means that the project needs to closely follow the schedule for it to succeed.

O1 The new pumps means not only new pumps but also new technology, new management and new education for the workers and much more. This means that there is wiggle room for how to implement the new pumps. The people involved in the project have the opportunity to shape the new model and how to use the pumps meaning that they are in charge of a lot and do not have many things that they have to comply with giving them more freedom.

T1 It is known that for example the wifi connection might not be fully implemented and if the choice of smart pumps are to be used if the wifi is not established one might not be able to use the pumps. This is a huge threat as not being able to use the pumps would mean the project would be an utter failure.

T2 As mentioned all the decisions might not be able to be done within the project as this is a vast project and involves for example the Ministry. This means that one could be in the situation waiting for the decision from outside and this can cause delays, they might not approve of something and you have to redo some of the activities and the Ministry will not have complete focus on this project and therefore the handling times might be quite long.

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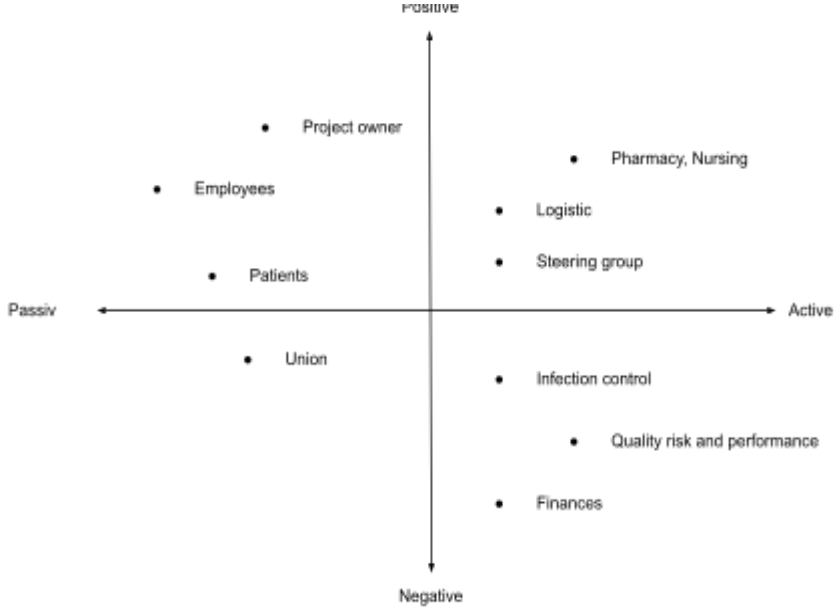
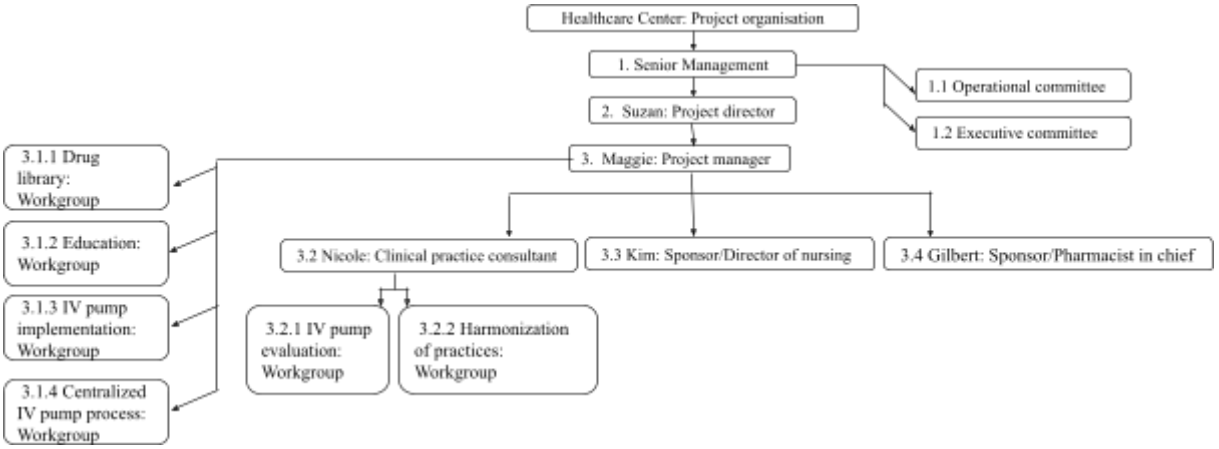
Stakeholder mapping



OBS



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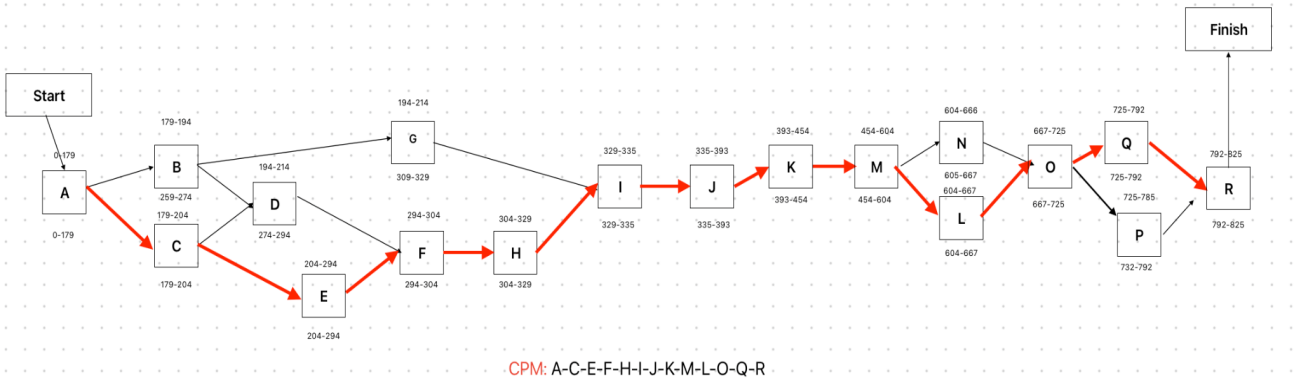
Network Diagram



Project Budget

Activity list					
ID	Activity	Resources	Duration(days)	Working Hours(h)	Activity cost(CAD)
A	Create a needs assessment	10	179	958	720 000
B	Identify practices that need harmonization	6	15	110	36 000
C	Administer intermittent IV medication and create model for continuous infusions	6	25	140	72 000
D	Create pump management model	5	20	126	55 000
E	Create a criteria for the IV pumps	8	90	754	288 000

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F	Decide what equipment will be used	6	10	35	24 000
G	Plan how to harmonize the IV practices	3	20	105	33 000
H	Plan the pump logistics	3	25	129	36 000
I	Decide how the deployment and communication will occur	7	6	60	21 000
J	Operationalization of the plan	7	58	330	168 000
K	Deploy the pumps	9	61	572	216 000
L	Follow-up on the harmonization	10	63	400	240 000
M	Train workers to use the new pumps	4	150	1218	240 000
N	Test the project out (pilot project)	7	62	435	168 000
O	Full-scale implementation	6	58	370	144 000
P	Monitor the impact the pumps have	4	60	312	96 000
Q	Review quality indicators	4	63	315	96 000
R	Overview of the pumps	9	33	93	108 000

Project plan-Harmonization of IV Pumps

Assumptions for the budget have been made by looking at the job description of the worker and what their job entails to try to match them where they will be needed the most. Then using the hours from the Case info we distributed them depending on where they are needed and the amount of time they should be working. Assume that the project manager will be working in all the activities throughout the project to monitor. The knowledge broker is needed more towards the beginning and the process expert and change management expert work together. We also assumed that they do not need to work consecutive months and that it is all in total duration on the project. When it comes to the other resources needed from other departments we think that for example the It needs to be in the implementation and that the risk and performance experts are needed in the beginning a bit in the middle and a lot in the end. In the budget above only costs for workers for the activity is in as the rest of the money will be used to buy the pumps. We assumed that the average salary is 6000 CAD to calculate how much it might cost.

Schedule Bar Chart

Risk Analysis and response planning

A . Gap between the chosen scenarios and the user needs

B. Inability to put in place the needed infrastructure to support the full use of the smart pump safety features

C. Absence of allocated budget post implementation to ensure daily operations

D .Absence of a department willing to take on the management and upkeep of the IV pumps

E. Lack of coordination between related projects such as equipment, harmonization of IV practices

F. Absence of full-time dedicated resources to the project

G. The environment is not adapted to support the smart pumps

Project plan-Harmonization of IV Pumps