

Quality Training Program

Project Title: *Reducing chemotherapy infusion wait times for the Medisprof Cancer Center patients, from arrival to treatment start.*

Presenter's Name: *Cacuci Georgeta, Nursing Director*

Institution: *Medisprof Cancer Center, Cluj Napoca, Romania*

Date: *14 of December 2020, Madrid, Spain (Virtual)*

Institutional Overview

Medisprof Cancer Center is a family business founded by the Udrea family which, while reaching a sustained and healthy growth, had to define its strategic and development principles.

Mision

A warm, welcoming and luminous place certified on American standards

Vision

International high-quality standards through a holistic approach, while keeping the accessibility

Values

Life quality, Patient care

Institutional Overview

Medical Oncology Department has been ASCO-QOPI 2018 certified and ISO 9001:2015; 15224:2017; 27001:2018

Medical Oncology Department:
11 medical oncologists

Day Hospital:
22 beds

Average number of patients at MCC/day: 250
Chemotherapy – 45
Radiotherapy – 100
Other services - 105

Medisprof Cancer Center - Day Hospital

- Day hospital – chemotherapy & radiotherapy
- Radiotherapy
- Imaging
- Pharmacy
- Blood sampling point
- Outpatient clinic
- Psychotherapy
- Nutrition
- Genetic counseling
- Surgery
- Gastroenterology/Pulmonology functional tests;

Problem Statement

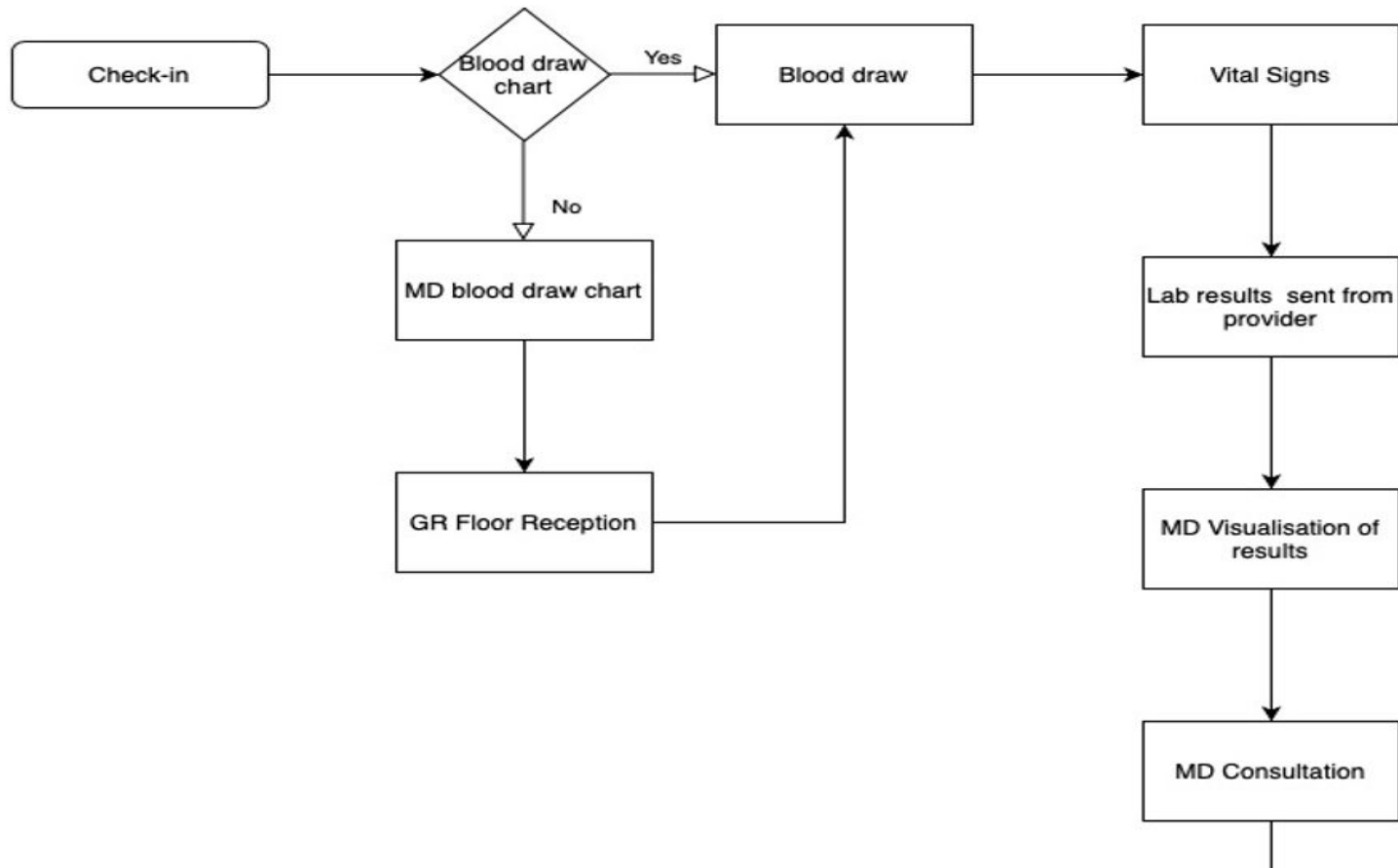
One of the most frequent complaint of patients is the long wait time for chemotherapy infusion, from check-in to check-out
-> source of decreased patient satisfaction

Our actions on this project will focus on analysing the time spent by patients who need chemotherapy and on site blood tests before the chemotherapy. The AIM is to reduce the waiting time with 50 % in the first 3 months (from implementation).

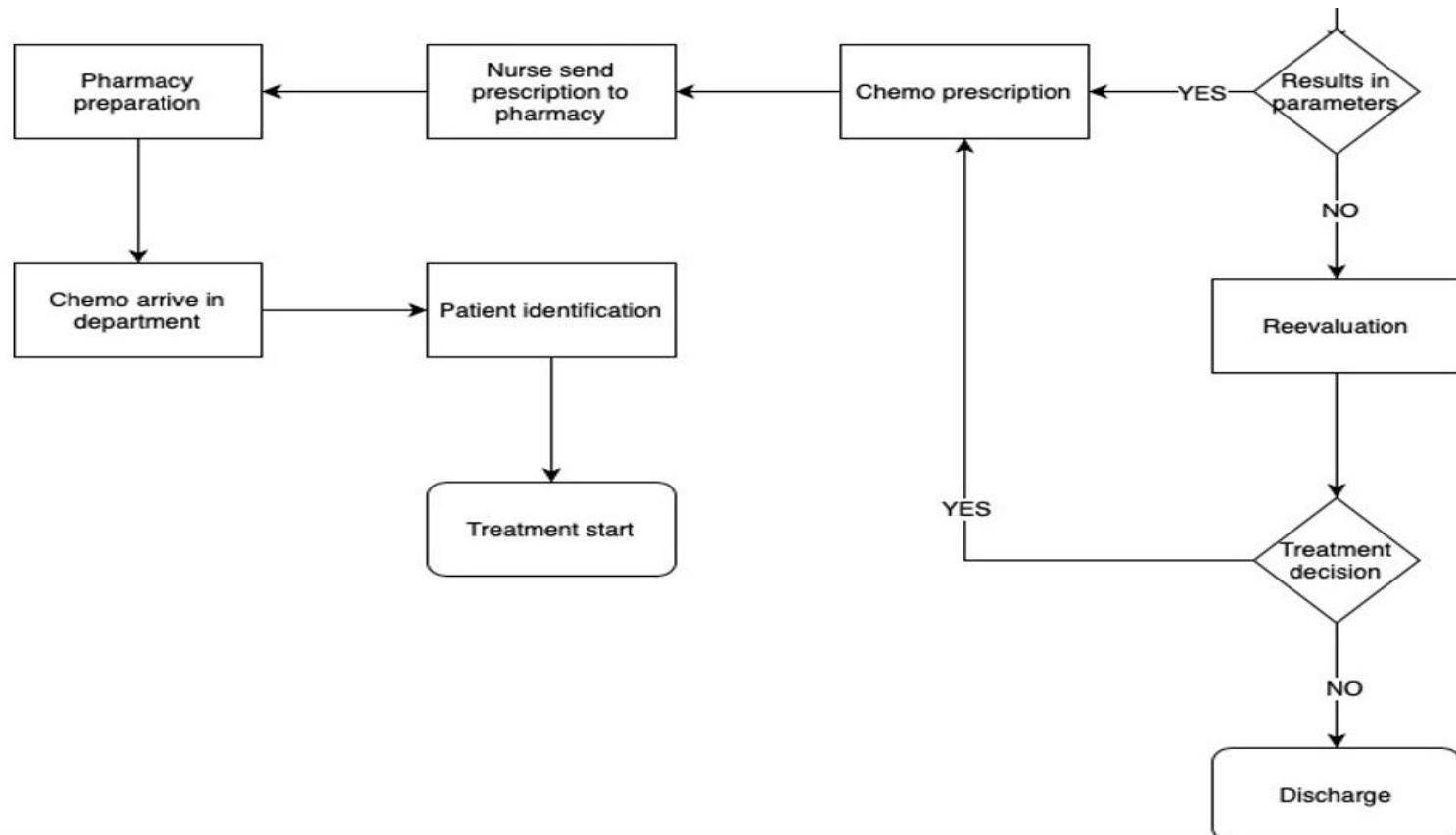
Team Members

Name	Role	Title
Udrea Carolina Ileana	Sponsor	Managing Director
Udrea Anghel Adrian	Team Leader	Scientific Director – Rresearch & Development
Udrea Serban	Facilitator	Deputy Managing Director
Cacuci Georgeta	Facilitator	Nursing Director
Dolores Fernández Pérez	Improvement coach	Nurse
Goia Irina-Andreea	Team Member	Medical Oncology Specialist
Hosu Ovidiu	Team Member	Medical Oncology Specialist
Avram Mariana Nelica	Team Member	Nurse
Szilagyí Elisabeta	Team Member	Nurse
Şimon Ileana Floarea	Team Member	Nurse
Cornea Maria	Team Member	Secretary
Rognean Mădălina Ioana	Team Member	Secretary
Boian Horea	Team Member	Patient

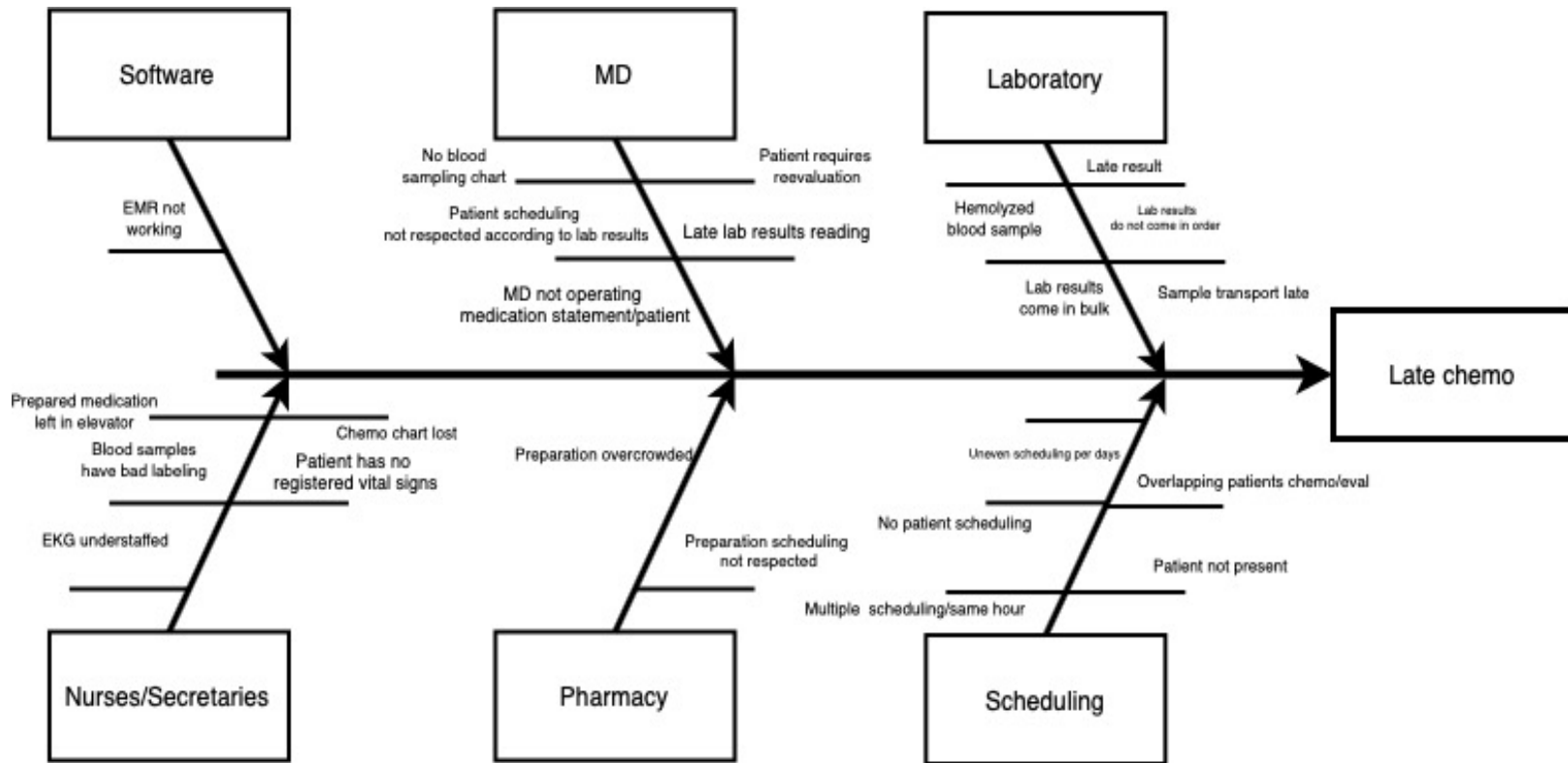
Current Process Map



Current Process Map



Cause & Effect Diagram



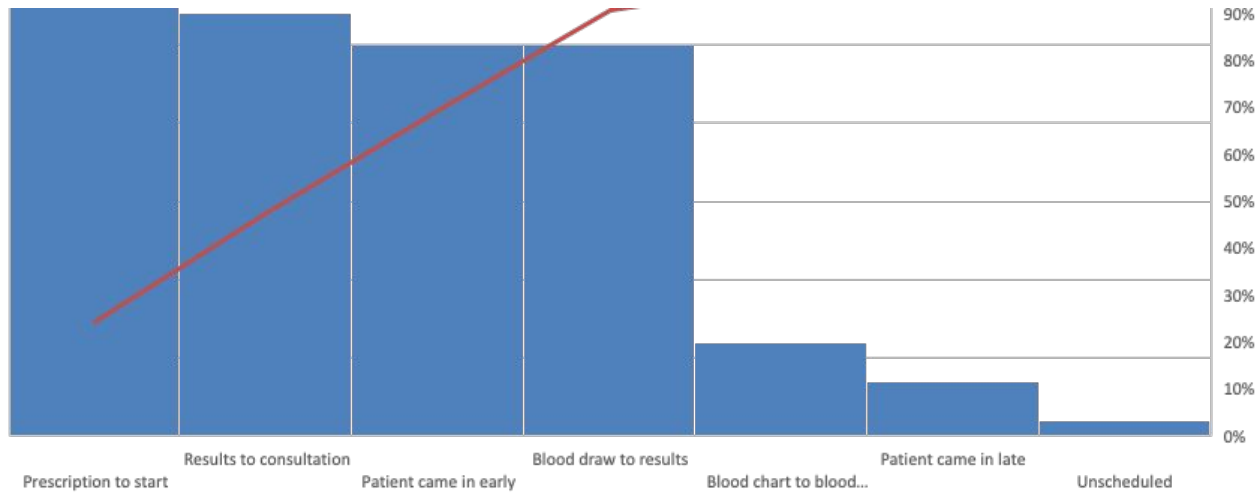
Baseline Data

Procedures	Median times
Check-in to blood draw	31 minutes
Blood chart to blood draw	22 minutes
Blood draw to results	2:42 hours
Results to consultation	44 minutes
Prescription to start	39 minutes

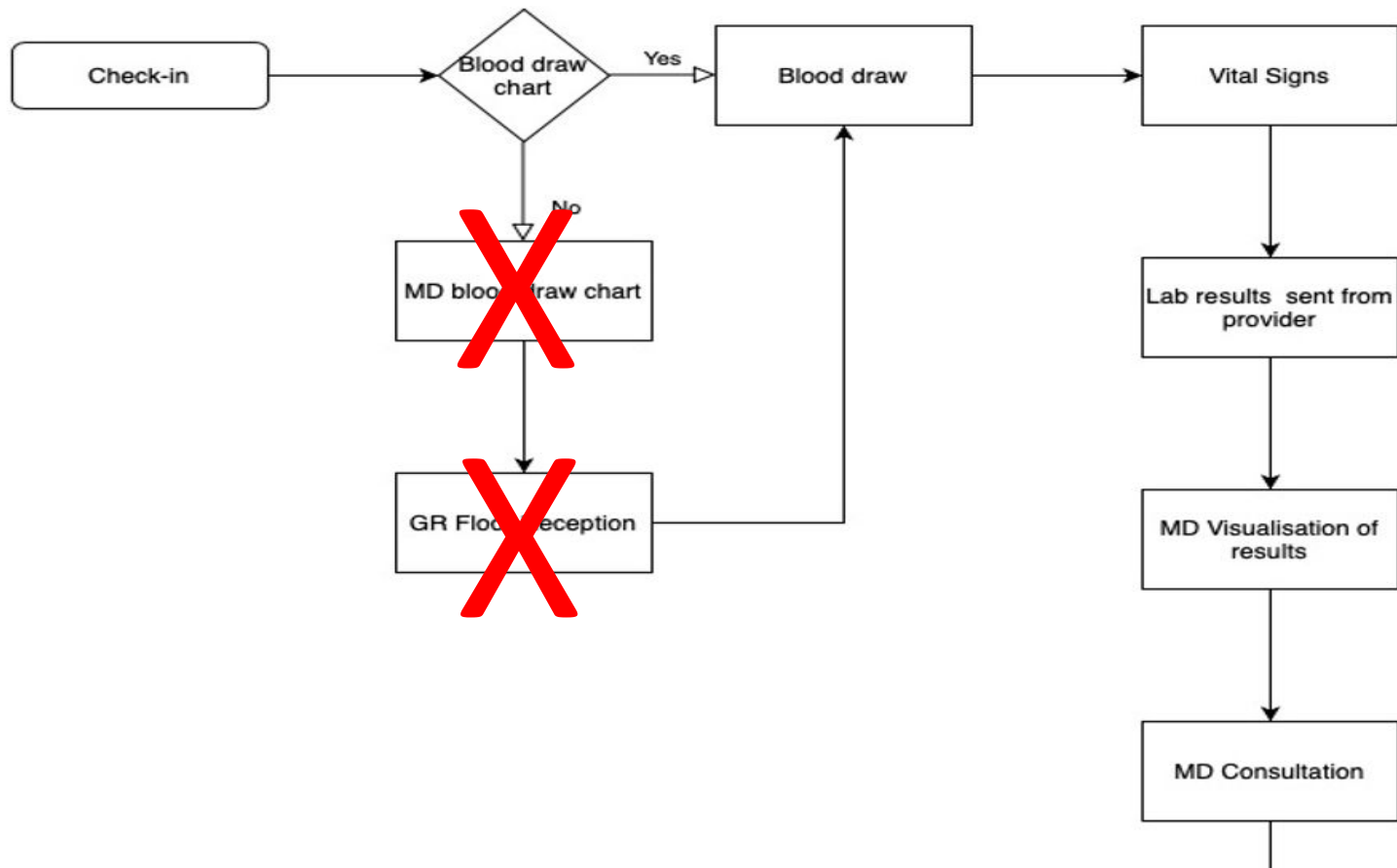
Diagnostic Data

Reason for delay	Frequency
Prescription to chemotherapy start	56
Lab results to MD consultation	54
Patient came in early	50
Blood draw to results	50
Blood chart to blood draw	12
Patient came in late	7
Unscheduled	2
TOTAL	231

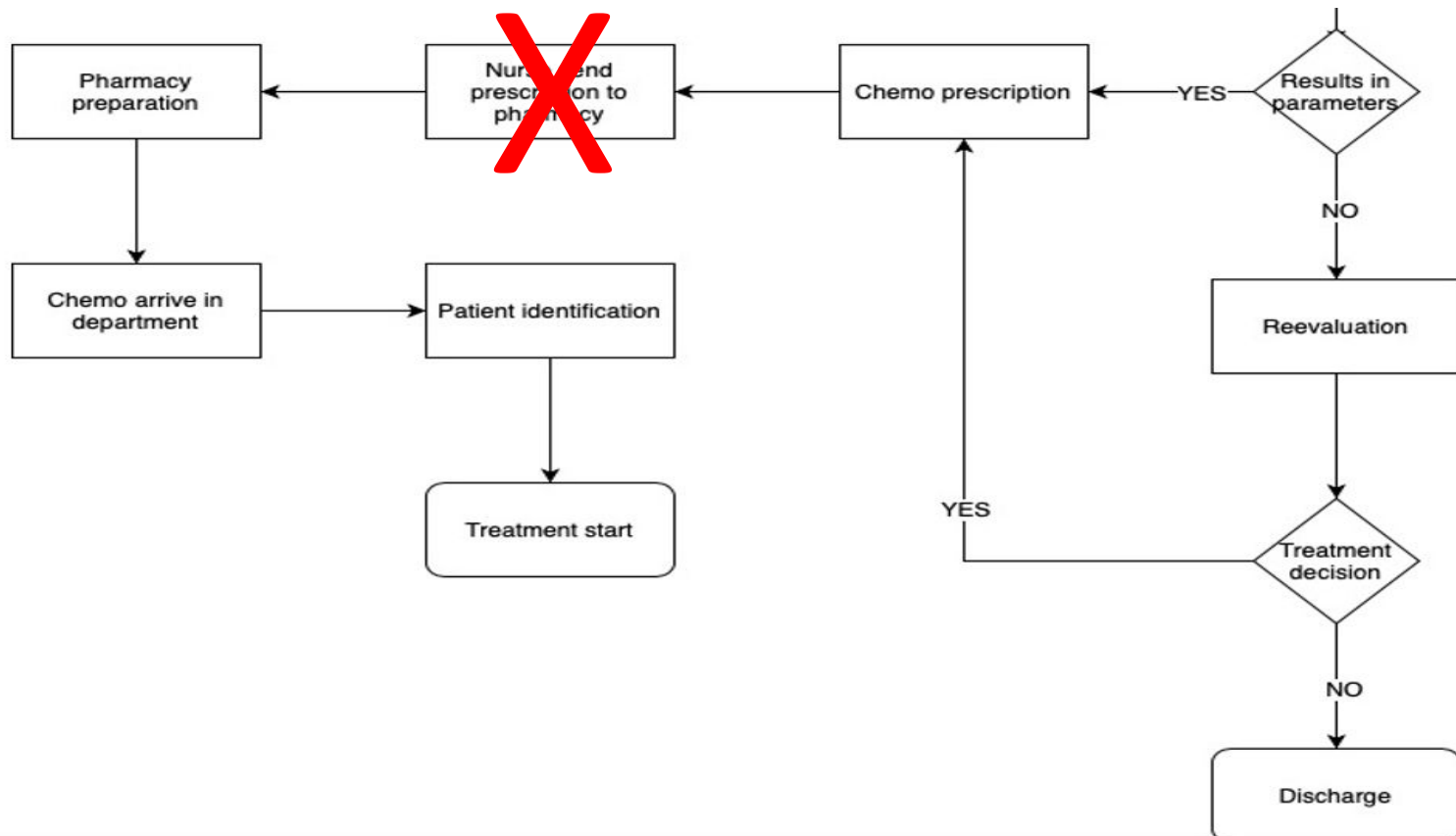
Diagnostic Data



Ideal Process Map



Ideal Process Map



Aim Statement

Reducing waiting times by 50% for patients at Medisprof Cancer Center from check-in to chemotherapy start by the end of november 2020.

Measures

- **Measures:**

Process Measures

- Chemotherapy prescription sent virtually to pharmacy (via EMR) and preparation of chemotherapy by order of prescription arrival in pharmacy, not grouped;
- MD notified by EMR via e-mail of lab results;
- Patients received to MD consultation according to blood result times;

Outcome Measure: Wait time until chemo administration.

- **Patient population:** All patients receiving chemotherapy and having blood-work on the same day.
- **Calculation methodology:** Numerator: number of times a delay occurred; Denominator: total number of delays
- **Data source:** EMR (Filemaker)
- **Data collection frequency:** Monthly
- **Data quality(any limitations):** Chemotherapy administration start times

Prioritised List of Changes (Priority/Pay –Off Matrix)

Impact	High	<ul style="list-style-type: none"> Improving the pharmacy preparation flow; Sending digital prescriptions to pharmacy; Improving MD procedures; 	<ul style="list-style-type: none"> Improving the lab results delivery system; Speeding up transportation of blood samples to the lab; Improving software reliability for EMR system;
	Low	<ul style="list-style-type: none"> Scheduling/Appointment system improvements; 	<ul style="list-style-type: none"> Patients presence at the right time;
		Easy	Difficult

PDSA Plan (Test of Change)

Date of PDSA Cycle	Description of Intervention	Results	Action Steps
April – July 2020	Implementing a barcode system Implementing Patient Card	Automatic data collection Shorter wait time for patients	<ul style="list-style-type: none"> - Installing a card printer; - Distribution of patient cards; - Installing barcode readers in various key- points;
May 2020	MD consult based on blood results delivery vs appointments	Shorter wait time for patients	<ul style="list-style-type: none"> - Management decisions based on data analysis;
August 2020	Digital chemotherapy charts sent to pharmacy Individual preparation of chemotherapy charts	Shorter wait time for patients	<ul style="list-style-type: none"> - Team meetings for decisions making; - Implementing and monitoring the process;

Change Data

Action Items	Initial Data	After Measures
Number of patients studied	87	215
Difference between arrival and appointment time (AVERAGE)	1h50m	1h20m
Difference between check-in and blood draw (AVERAGE)	0h34m	0h20m
Difference between blood draw and results (AVERAGE)	2h40m	2h52m
Difference between results and MD visualisation (AVERAGE)	0h54m	0h45m
Difference between MD lab results visualisation and chemo chart print (AVERAGE)	0h20m	0h18m
Difference between chemo preparation and start (AVERAGE)	0h42m	0h20m
TOTAL DURATION BETWEEN CHECK-IN AND CHEMO START (AVERAGE)	5h19m	4h45 min

Conclusions

- Overall waiting time is now improved with 10%;
- Wait time due to internal processes is now reduced by 29%
- Flow is impacted by external factors - lab results time has increased with 12 minutes (7.5%);

Next Steps/Plan for Sustainability

- Implementing e-mail notification for blood sample results availability;
 - Date of implementation: T0 - March 2021;
- Installing digital system for collecting Start/Finish chemotherapy timestamps in treatment rooms;
 - Date of implementation: T0 - June 2021;
- Improvements in patients information and compliance through access to EMR from home. Consultation before chemotherapy will be more productive and possible shorter as patients will have specific questions after having enough time to study their EMR;
 - Date of implementation: T0 - December 2021;
- Implementing real time follow-up of waiting times in various services in the clinic, by creating a control Center based on patient cards informations;
 - Date of implementation: By need;

Thank you!



Q & A