



Care and Compassion for the Nation

ONCOLOGY PHARMACY SERVICES

Alexandra Vania Andi, S.Farm, M.Si, Apt

MRCCC Siloam Hospitals Semanggi

2018



Hospital Introduction

Clinical Pharmacy Services

Patient-Based Case



Care and Compassion for the Nation

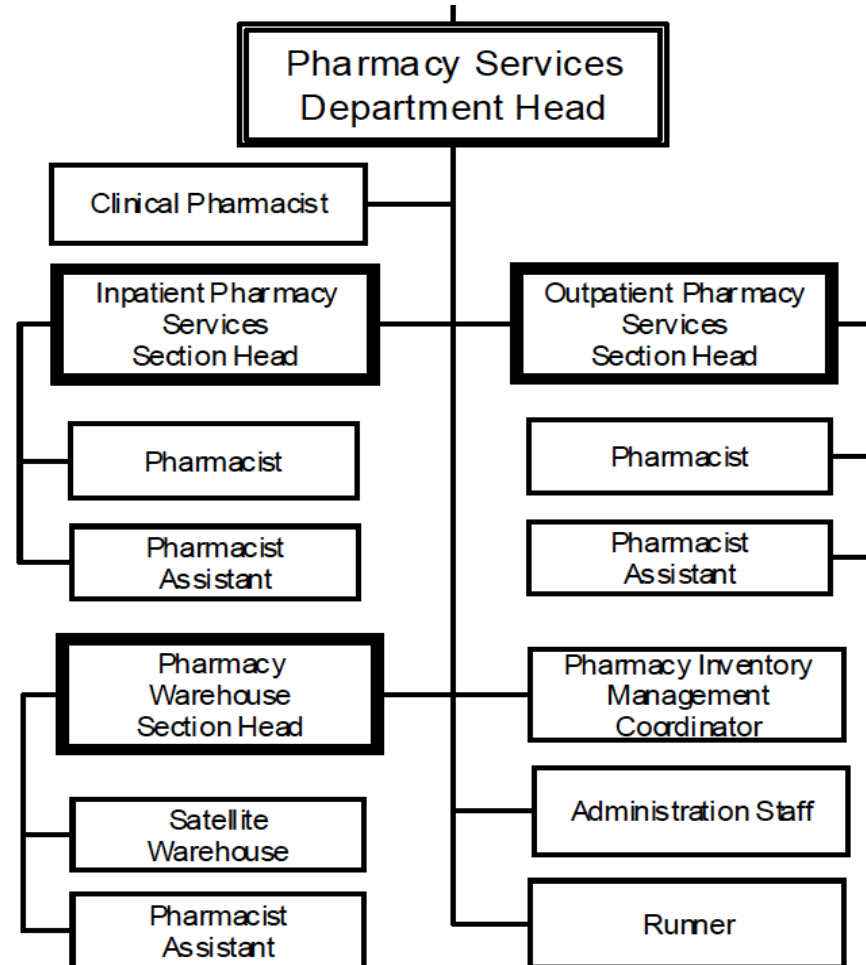
Hospital Introduction

MRCCC Siloam Hospitals Semanggi

- Rumah Sakit Khusus Kanker Siloam Semanggi – MRCCC (Mochtar Riady Comprehensive Cancer Center)
- Since 2007
- A Private Cancer Center owned by PT Siloam Hospitals Tbk.
- Highest Hospital in Asia : 38 floors(140 m)
- Oncology Services :
 - Radiotherapy
 - PET-CT, Bone Scans, Radiation Isolation Room (RIR)
 - ODC (One Day Care) Chemotherapy,
 - Oncology Surgery
 - Palliative Care
 - Outpatient Department with Multidiscipline Oncology Care

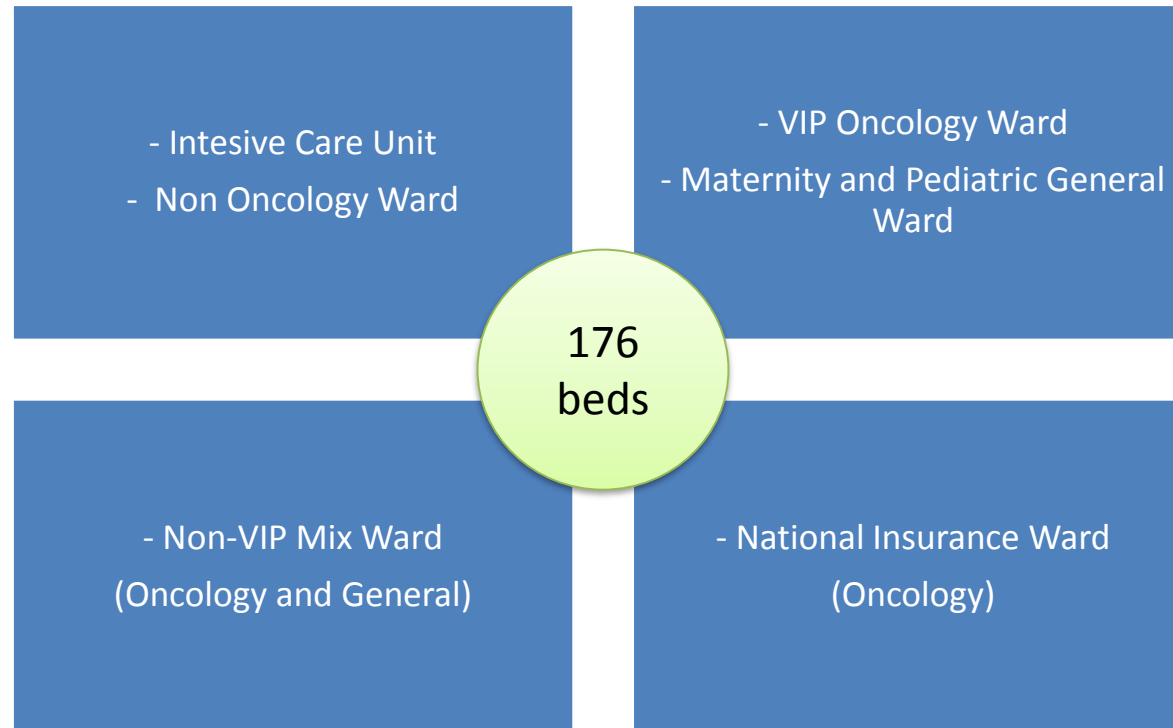


Pharmacy Department



Clinical Pharmacists

- Achievement (August 2018) : 97% medication reconciliation (VIP Oncology Ward)
- Based on Minister of Health Regulation, 1 pharmacist ~ 30 patients



Clinical Pharmacy Services

Clinical Pharmacy Services

Review of
Prescriptions

Medication History
Tracking

Medication
Reconciliation

Drug Information
Services

Counseling

Visit

Drug Therapy
Monitoring

Adverse Drug
Reactions
Monitoring and
Reporting

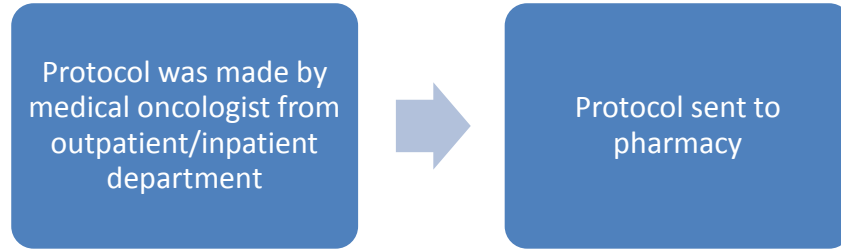
Drug Use
Evaluation

Clinical Pharmacist Role in Chemotherapy Services

Clinical Pharmacist Role in Chemotherapy Services

Protocol was made by
medical oncologist from
outpatient/inpatient
department

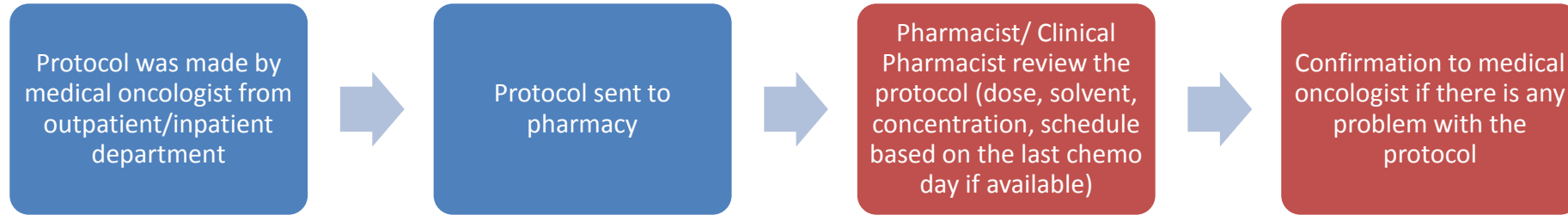
Clinical Pharmacist Role in Chemotherapy Services



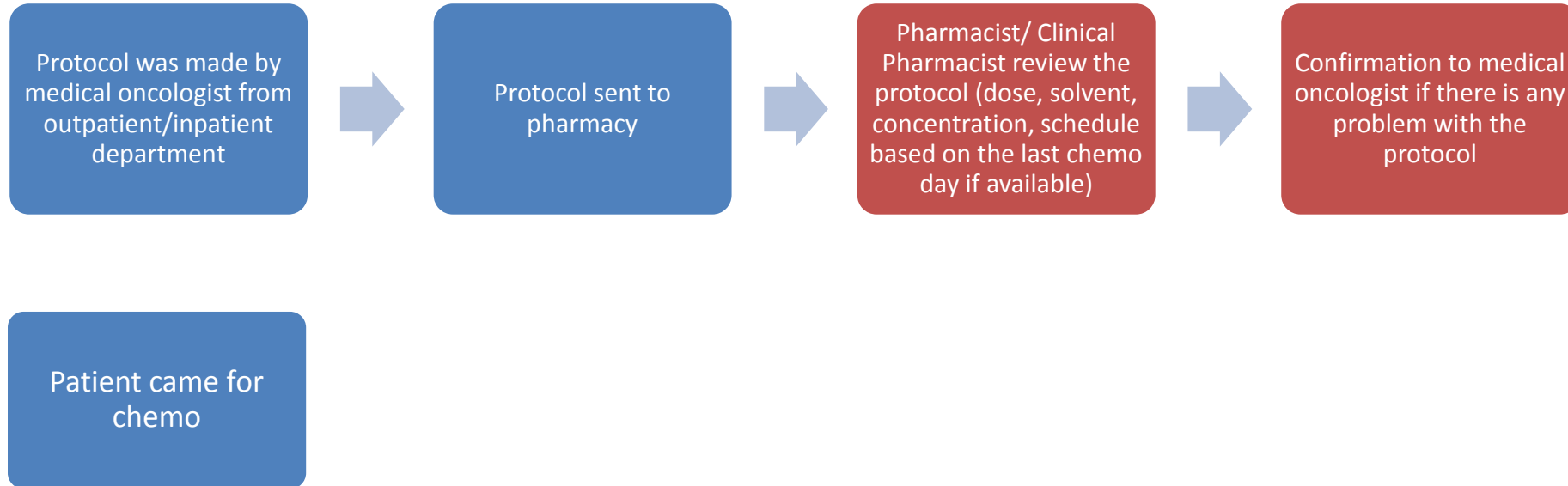
Clinical Pharmacist Role in Chemotherapy Services



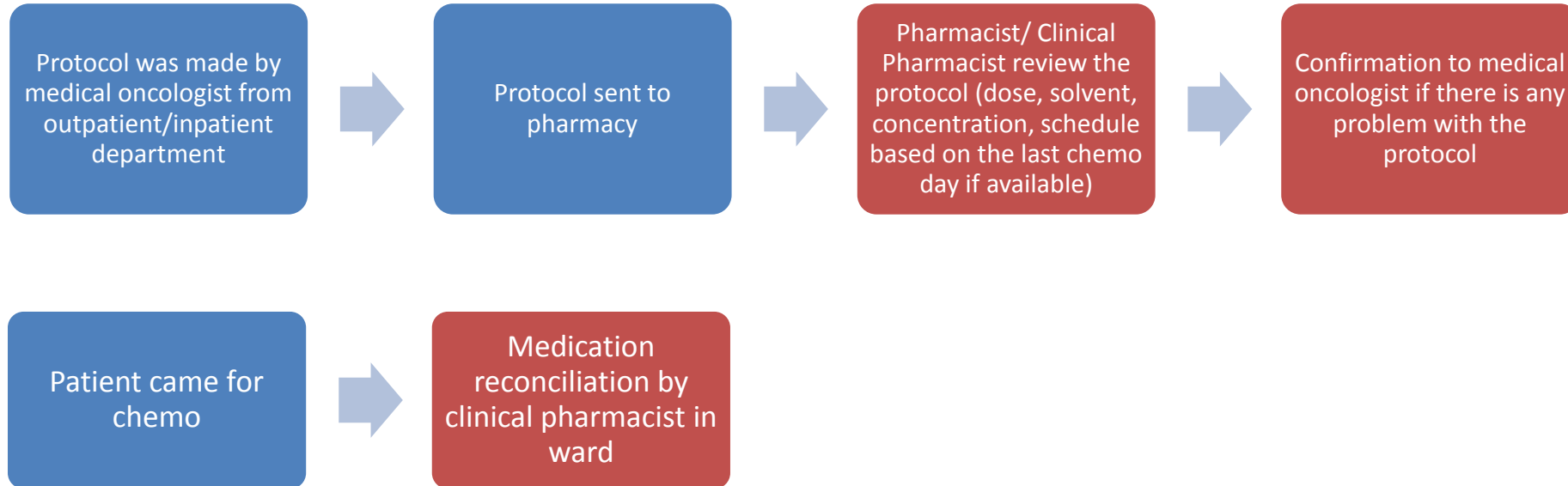
Clinical Pharmacist Role in Chemotherapy Services



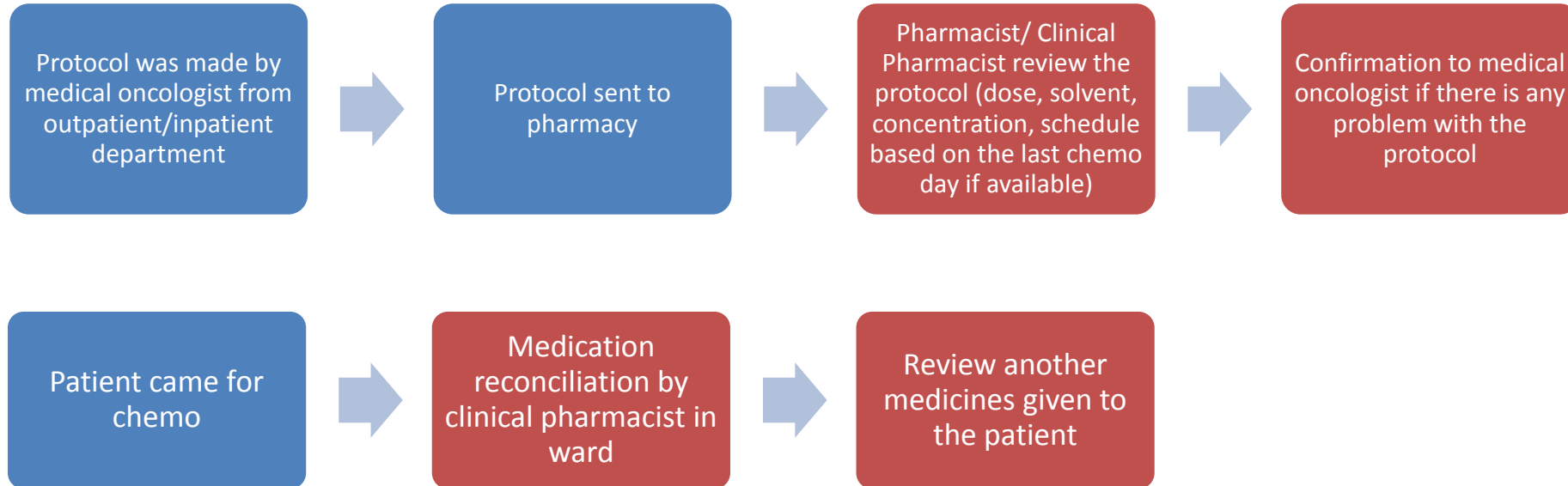
Clinical Pharmacist Role in Chemotherapy Services



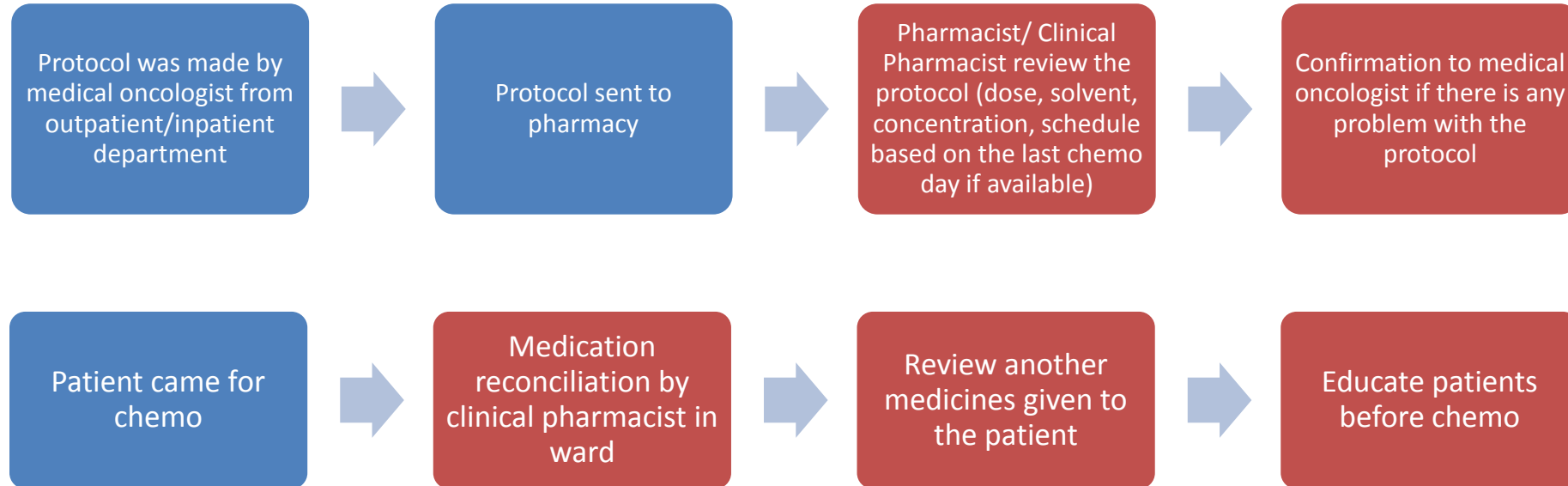
Clinical Pharmacist Role in Chemotherapy Services



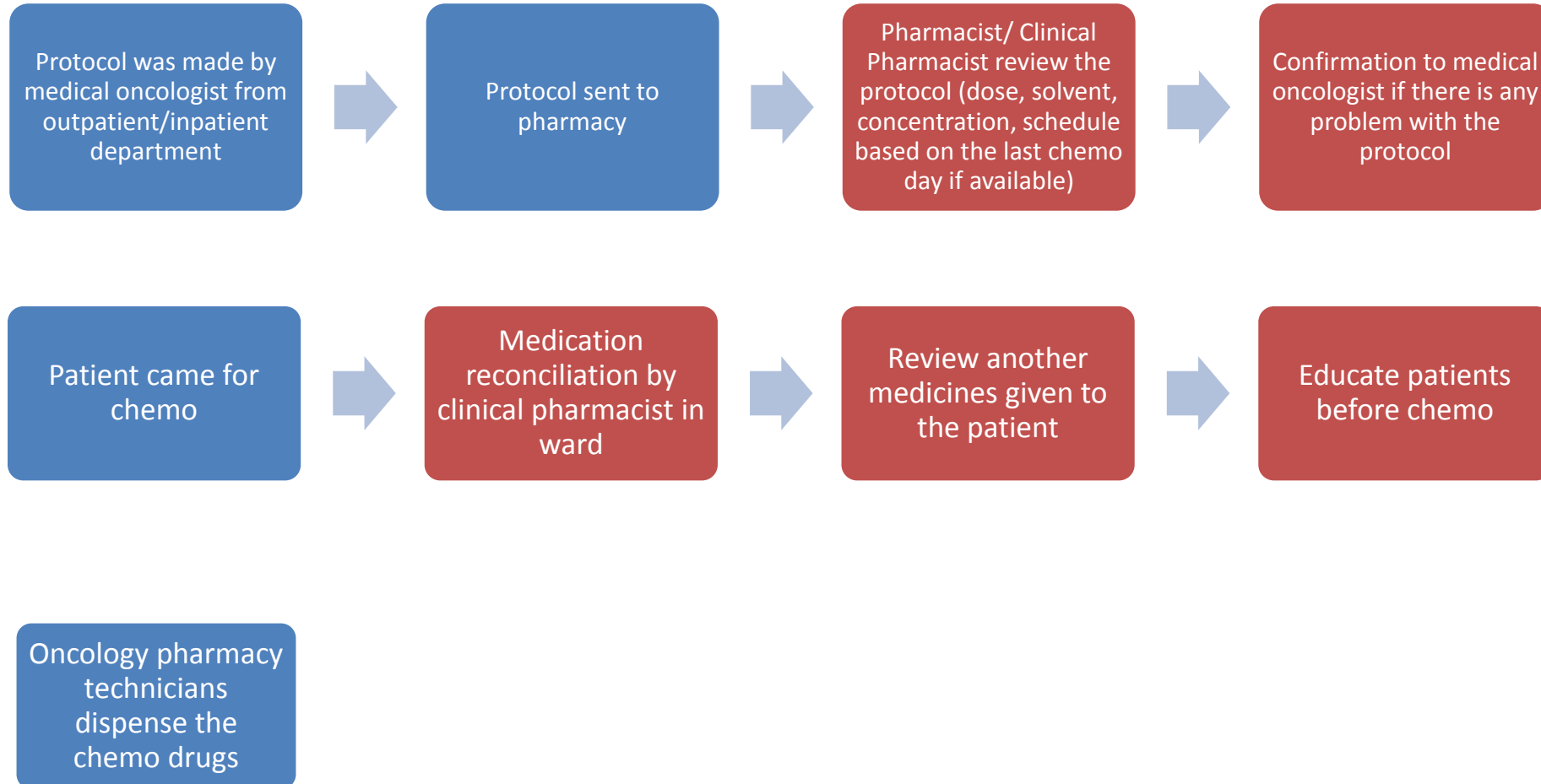
Clinical Pharmacist Role in Chemotherapy Services



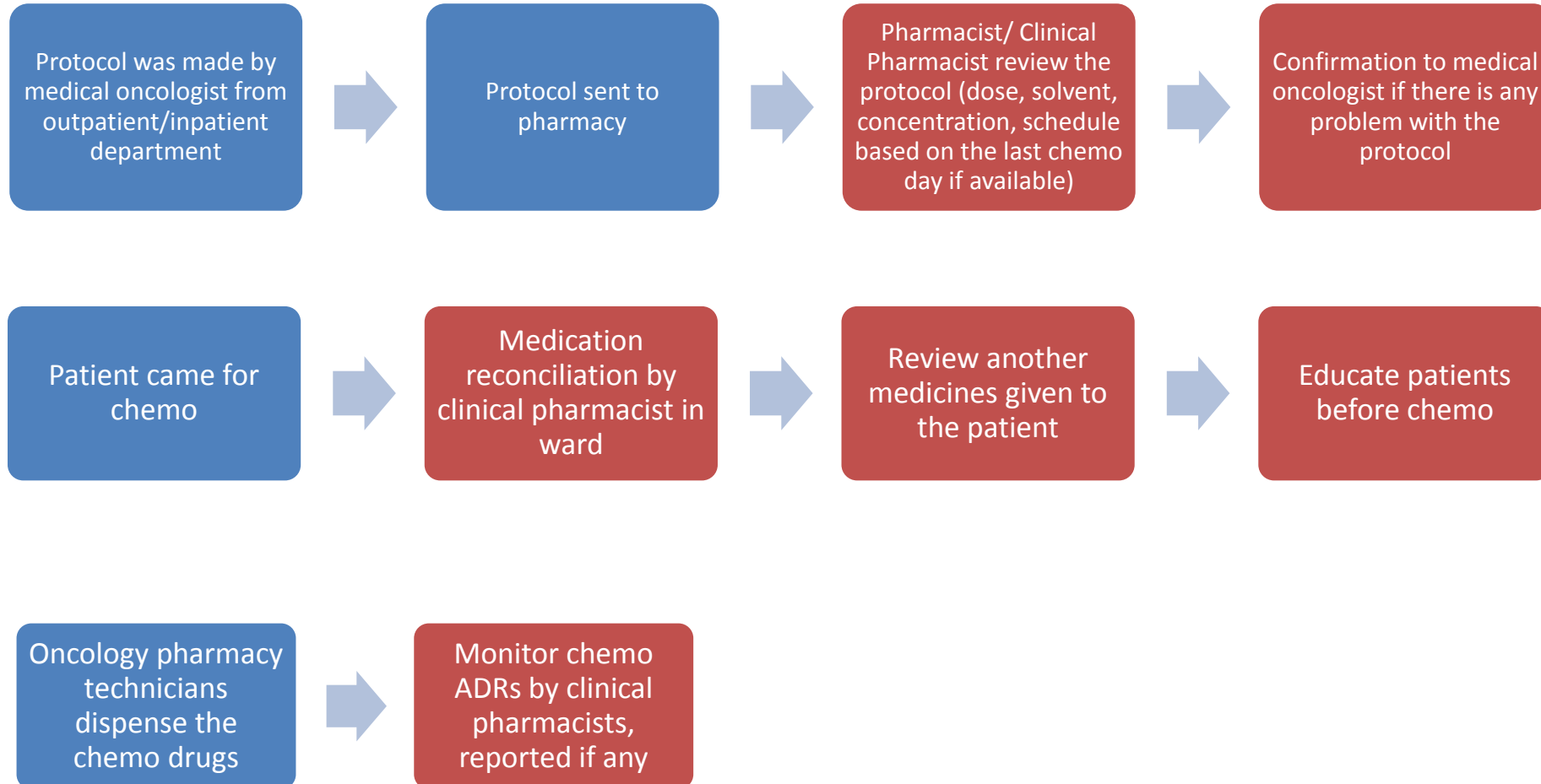
Clinical Pharmacist Role in Chemotherapy Services



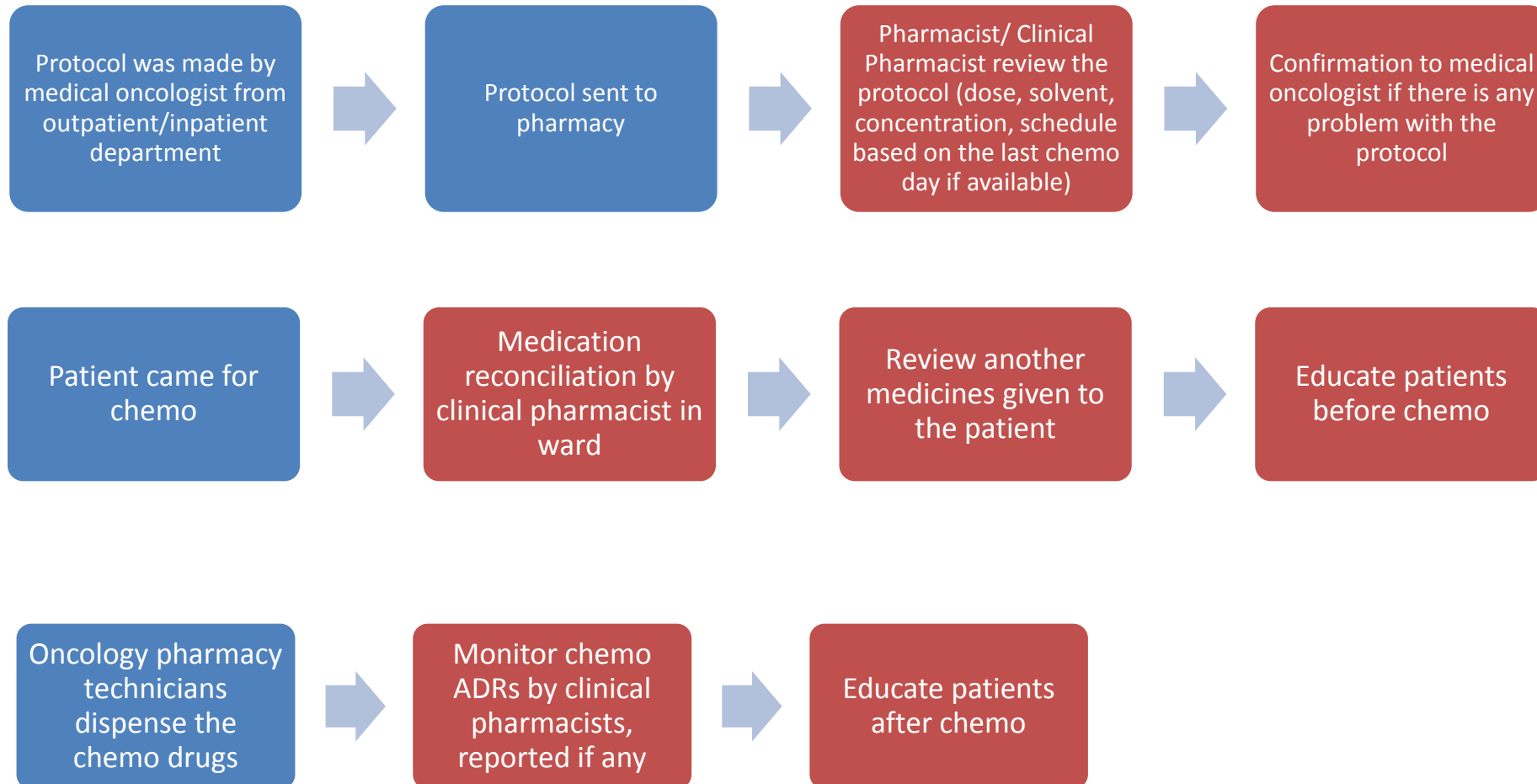
Clinical Pharmacist Role in Chemotherapy Services



Clinical Pharmacist Role in Chemotherapy Services



Clinical Pharmacist Role in Chemotherapy Services



Red Box : Clinical Pharmacist Involvement

Patient-Based Case



Pharmacokinetics: The Principle of Effective Cancer Management

Patient-based Case

Pharmacokinetics: The Principle of Effective Cancer Management

A patient with Burkitt Lymphoma underwent R-HyperCVAD Course B

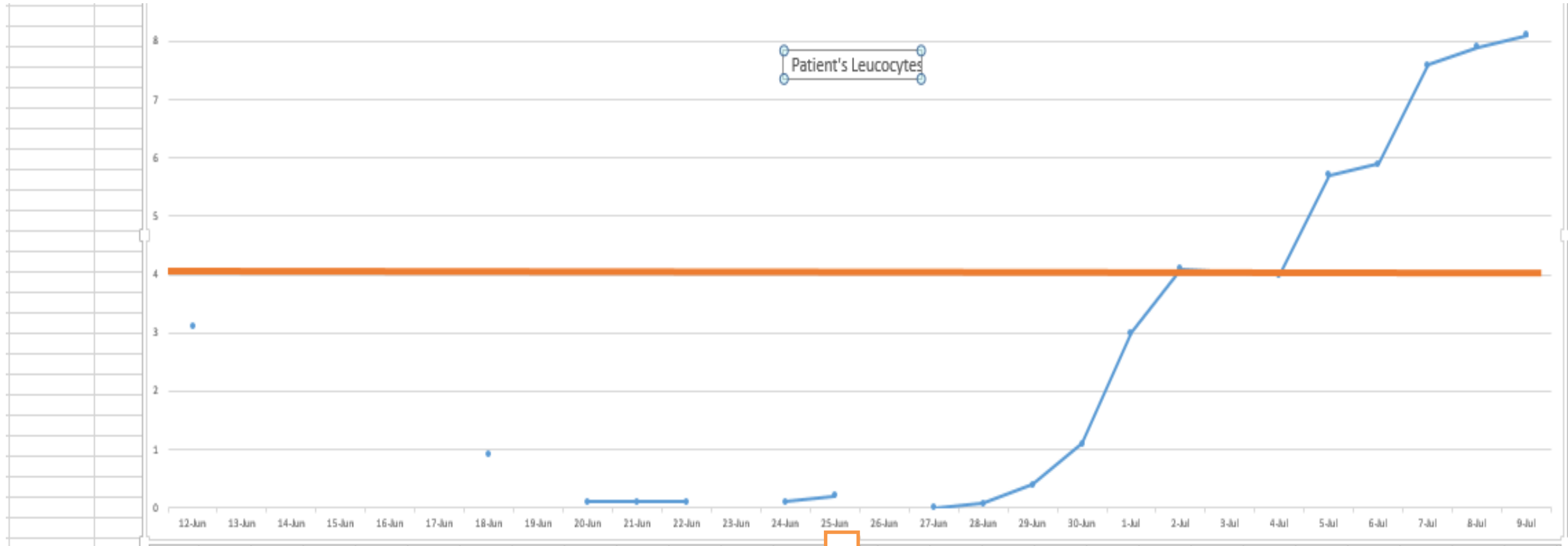
- Day 1 : Rituximab 375 mg/m², MTX 1 gram/m²
- Day 2-3 : 4 doses of Cytarabine 3 gram/m²
- Day 8 : Rituximab 375 mg/m²

CNS Prophylaxis :

- Day 2 : MTX Intrathecal 12 mg
- Day 8 : Cytarabine Intrathecal 100 mg

Neutropenia on day-4 → was corrected by Filgrastim IV.

Recommendation : IV as a short infusion over 15 to 30 minutes (chemotherapy-induced neutropenia)



	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	1-Jul	2-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul	
Leucocyte 1000/L	3.1						0.9		0.1	0.1	0.1		0.1	0.2			0.08	0.4	1.1	3	4.1	4	5.7	5.9	7.6	7.9	8.1	
Rituximab			750 mg									750 mg																750 mg
Methotrexate				2 gram		IT 12 mg																						
Cytarabine						4 x 6 gram																						
Filgrastim	2 x 300 mcg SC	2 x 300 mcg SC						1 x 300 mcg IV drip	1 x 300 mcg IV bolus	1 x 300 mcg IV bolus	1 x 300 mcg IV bolus	1 x 300 mcg IV bolus	1 x 300 mcg IV bolus	1 x 300 mcg IV bolus	2 x 300 mcg IV bolus	2 x 300 mcg IV bolus	2 x 300 mcg IV bolus	2 x 300 mcg IV bolus	2 x 300 mcg IV drip	2 x 300 mcg IV drip	2 x 300 mcg IV drip	2 x 300 mcg IV drip	2 x 300 mcg IV drip	2 x 300 mcg IV drip	2 x 300 mcg IV drip	2 x 300 mcg IV drip		

17 days delayed

Pharmacokinetics: The Principle of Effective Cancer Management

- Patient got 17 days delayed chemotherapy (17 days x \pm \$134.85 = \$2,292.53 for hospital room)
- 11 vials of Filgrastim via irrational route (11 x \pm \$106 = \$1,166)
- The case presented above is an example of the significance of drug related problem (DRP) in cancer management.
- Prolongation of hospital stay, increased risk of mortality, serious complications, and financial burden were some associated issues following DRPs in cancer management.

Summary

- Placement of a clinical pharmacist prevented those risks.
- Pharmacists are the most competent professionals on pharmacokinetic and pharmacodynamic, thus provision of clinical pharmacy services will establish patient-centered and effective care.
- Pharmaceutical services need clinical pharmacists to prevent the potential DRP become actual/real DRP.
- Clinical pharmacists need continuous study to collaborate with other professional healthcare providers.

Acknowledgement

Thanks to :

- APOPC 2018 Committee
- MRCCC Siloam Hospitals Semanggi – Pharmacy Department



Care and Compassion for the Nation

THANK YOU