

North Shore-Long Island Jewish Health System, Inc. Long Island Jewish Medical Center		PATIENT CARE SERVICES	
POLICY TITLE: ORDERING, ADMINISTRATION AND DISPOSAL OF ORAL CHEMOTHERAPEUTIC AGENTS			
Prepared by: Department of Nursing, Department of Pharmacy Services	Effective Date: 6/3/14	Last Revised/ Reviewed:	Page 1 of 5

**GENERAL STATEMENT OF PURPOSE:**

To provide guidelines for the ordering, administration and disposal of oral cytotoxic and antineoplastic agents.

**SCOPE:**

This policy applies to all members of the Long Island Jewish Medical Center work force including, but not limited to employees, medical staff, volunteers, students, physician office staff, and other persons performing work for or at Long Island Jewish Medical Center.

**RESPONSIBILITIES:**

**Physicians, fellows, and nurses**

**A. Inpatient orders for oral chemotherapeutic agents that are part of chemotherapy protocol for oncological patients:**

Inpatient oral chemotherapy orders will be entered in Sunrise Clinical Manager (SCM) following computerized physician order entry (CPOE) process by an oncology fellow or an attending physician. Orders entered by a fellow must be co-signed by an attending physician; the name of the approving attending physician must be listed in the "Special Instructions" field on the order screen.

All orders must contain dosage in milligrams per m<sup>2</sup> (or per kg) and the total dose to be given based on the patient's BSA or weight. If a flat dose is ordered it should be clearly specified on the order.

NOTE: If an oral agent is part of a treatment regimen, orders for chemotherapy regimen will be written on a paper order form and will include all agents that are part of the protocol, injectable and oral (in addition to the SCM order). The provider will indicate on the order form "entered in SCM".

**B. Inpatient orders for oral chemotherapeutic agents for patients not admitted under Oncology Service:**

Patients who are admitted to the hospital under other than Oncology Service and who are on oral chemotherapeutic agents prior to admission will continue their oral chemotherapy regimen while in the hospital. Orders for oral chemotherapeutic agent(s) will be entered in SCM by the admitting physician (resident, fellow or attending) following the CPOE process. Prescriber must discuss orders for oral chemotherapeutic agents that require oncology consult with an oncology attending physician to obtain an approval; the name of the approving oncologist must be entered in the "Special Instructions" field on the CPOE order screen. For a list of oral chemotherapeutic agents that require oncology consult and a list of agents that do not require oncology consult see Appendix 1, the list is available in SCM under the Tools tab.

All orders must contain dosage in milligrams per m<sup>2</sup> (or per kg) and the total dose to be given based on the patient's BSA or weight. If a flat dose is ordered, the information should be clearly stated in the order.

**C. Inpatient orders for oral chemotherapeutic agents for non-oncological indications:**

Orders for oral chemotherapeutic agents for non-oncological indications will be entered by the provider directly into SCM following CPOE process by the provider. Oral chemotherapeutic agents that require consult must be approved by an attending physician from the respective service (e.g. methotrexate for rheumatoid arthritis must be approved by a rheumatology attending physician). The name of the approving attending physician must be entered in the "Special Instructions" field on the order screen.

Doses may be rounded to the nearest tablet size or the order may specify alternating doses each day to obtain the correct overall dosage. If a flat dose was ordered it must be clearly stated in the order.

**Registered Nurse (RN)**

- A. RN will administer the oral cytotoxic/antineoplastic agents as per order.
- B. RN will document administration of the medication on eMAR  
Oral chemotherapeutic agents that are part of a protocol that includes both injectable and oral agents will be documented on eMAR in SCM, a note will be made on paper MAR "See SCM"
- C. RN will document patient's response to chemotherapy in the outcome summary in SCM.

If the prescribed medication is an oral tablet or a capsule and the patient is not able to swallow, the nurse will not crush the tablets or open the capsules. The nurse will contact the pharmacy to discuss the possibility of compounding an oral liquid. If there is insufficient reference data available on uniformity, bioequivalence, and stability of the extemporaneous oral liquid preparation the pharmacist will not be able to compound an oral liquid preparation and will contact the prescriber to discuss possible change in therapy.

**Pharmacist**

The pharmacist will verify orders as per Pharmacy SCM verification procedure. Orders that require Oncology Consult and are missing the name of the oncology attending physician who approved the medication are not acceptable. The pharmacist will contact the prescriber and inform him/her that the oral chemotherapeutic agent that was ordered requires an oncology consult and will be dispensed after the consult is obtained. Oral chemotherapeutic agents will be labeled with computer generated Sunrise label and dispensed as per Pharmacy dispensing procedures. Second pharmacist will check and verify the order prior to dispensing. Oral chemotherapeutic agents will be dispensed with a yellow "Hazardous Drug" warning sticker:



**Housekeeper**

- A. Cleans spills according to Environmental Services Department guidelines.
- B. Arranges for removal of hazardous waste containers from the units.

**PROCEDURE:**

**I. Administration**

**Registered nurse will:**

1. Verify that the label on the medication prepared by Pharmacy is in agreement with the Prescriber's order.
2. Will verify the eight rights of medication administration:
  - o Right patient (name and date of birth or medical record number)
  - o Right medication
  - o Right dose (BSA with dose calculation, if applicable)
  - o Right Route
  - o Right Time
  - o Right Reason
  - o Right Documentation
  - o Right Response
3. Don latex powder free gloves or double latex-free chemotherapy powder-free gloves prior to administration of cytotoxic/antineoplastic agents.
4. Select other protective barriers available based on recommendations by the Oncology Nursing Society Chemotherapy Administration Safety Standards and professional judgment regarding risks of exposure (e.g., gowns, masks, eye shield). For administration of oral liquid chemotherapeutic agents select PPE as recommended by OSN for administration of IV chemotherapy.
5. If the prescribed medication is an oral tablet or a capsule and the patient is not able to swallow, the nurse will not crush the tablets or open the capsules. The nurse will contact the pharmacy to discuss the possibility of compounding an oral liquid.
6. Administer the agent as per prescriber's order,
7. Once the oral chemotherapy medication administration is completed, **ALL GLOVES AND ANY OTHER PROTECTIVE BARRIERS/EQUIPMENT USED MUST BE DISCARDED IN THE NEAREST HAZARDOUS WASTE RECEPTACLE LABELED FOR CHEMOTHERAPY WASTE.**
8. Wash hands thoroughly.

## II. Protecting Staff Caring for the Patient Receiving Antineoplastic/Cytotoxic Agents

- A. If there is any possibility of employee exposure during the preparation, administration or discontinuation of chemotherapeutic agent, use the following precautions:
  1. Latex chemo powder free gloves or double latex free, powder free chemotherapy gloves are worn when handling body fluids or other items contaminated with a chemotherapeutic agent.
  2. When discarding waste from bed pans, urinals or emesis basins, cover receptacle while transporting to either the toilet in the patient's room or to the hopper in the soiled utility room. Avoid splashing contents. Flush toilet/hopper twice. Rinse and return covered receptacles to bedside stand. When the patient is discharged, discard bedpans, urinals, emesis basins in the hazardous waste receptacle labeled for chemotherapy waste.
  3. Instruct those patients who can independently use the toilet to flush twice after use.

## III. Disposal Procedures for Chemotherapy Contaminated Items

- A. Discard oral chemotherapeutic agents in the appropriate hazardous waste receptacle labeled for chemotherapy waste.
- B. Discard gloves and other protective barriers used into the nearest appropriate hazardous waste receptacle labeled for chemotherapy waste.

For more information and detailed procedure on disposal of chemotherapeutic agents refer to the "Hazardous and Regulated Pharmaceutical Waste Disposal" policy.

## IV. Direct Contact with Antineoplastic/Cytotoxic Agent

- A. Maintain *Chemotherapy Emergency Spill Kit* on unit.
- B. In case of skin contact:
  1. Wash affected area thoroughly with soap (not with a germicidal agent) and water as soon as possible.
  2. Notify Nurse Manager and EHS.

3. Complete Employee Accident Report on HealthPort and submit to EHS (ED when EHS is closed) for medical evaluation.
- C. In case of eye contact:
1. Flush affected eye at the nearest eyewash station.
  2. Notify Nurse Manager and EHS.
  3. Complete Employee Accident Report on HealthPort and submit to EHS (ED when EHS is closed) for medical evaluation

#### V. Management of Antineoplastic/Cytotoxic Agent Spills

- A. Spills and breakages will be cleaned immediately by a properly protected person trained in the appropriate procedures as follows:
1. Close off contaminated area and restrict traffic until clean up is completed.
  2. Notify the Environmental Services Department of the location of the spill.
  3. All employees assisting with the clean-up will follow the guidelines below:
 

Open a *Chemotherapy Emergency Spill Kit* and utilize contents.

    - a. Don all personal protective equipment supplied in the kit.
    - b. Place contaminated linen items into an impervious linen bag and place in linen chute or appropriate designated area for specific division. This includes linen contaminated with body fluids.
    - c. Discard double-bagged contaminated disposable items supplied in *Chemotherapy Emergency Spill Kit* into the hazardous waste receptacle labeled for chemotherapy waste.
    - d. Wash hands thoroughly.
  4. If "spill" contaminates a piece of electrical equipment, absorb the chemotherapeutic agent following the above guidelines, cover the equipment with a red plastic bag and secure. Notify the Bio-Medical Engineering Department of the incident, complete a "repair form" explaining the incident and send to the Department of Bio-Medical Engineering.
  5. Complete occurrence report for spill of antineoplastic/cytotoxic agent.
  6. Report spills of an agent (liquid or dry) immediately to the Safety Officer during day shift and to the ADN at all other times.

#### VI. Staff Education

All personnel involved in handling of antineoplastic/cytotoxic medications will receive information about the medications including, but not limited to the following information:

- A. Known risks Material Safety Data Sheets (MSDS) which are in the hazardous substance manual in every patient care area
- B. Handling techniques
- C. Proper use of protective equipment
- D. Spill procedures
- E. Personnel Policies

#### REFERENCES TO REGULATIONS OR OTHER RELATED POLICIES

JC MM.06.01.01; MM.05.01.09

#### CLINICAL REFERENCES

American Society of Clinical Oncology / Oncology Nursing Society: 2013 Updated American Society of Clinical Oncology/Oncology Nursing Society Chemotherapy Administration Safety Standards Including Standards for the Safe Administration and Management of Oral Chemotherapy  
 Brown, K., Esper, P. Kelleher, L., Brace, O'Neill, T., Polovich, M. & White, J. Chemotherapy and Biotherapy: Guidelines and Recommendations for Practice. ONS Publishing Division: Pittsburg, 2001  
 Best Practices: evidence-based nursing procedures, 2<sup>nd</sup> ed. Lippincott Williams & Wilkins  
 American Society of Clinical Oncology / Oncology Nursing Society  
 Chemotherapy Administration Safety Standards<sup>©</sup> 2012 American Society of Clinical Oncology  
 The Joint Commission Medication Management Standard MM.04.01.01; MM.05.01.07

## ORAL CHEMOTHERAPEUTIC AGENTS

**	<b>Drugs Requiring Consult</b>
	Abiraterone Acetate (Zytiga®)
**	Altretamine (Hexalen®)
**	Azathioprine (Imuran®)
**	Bexarotene (Targretin®)
**	Busulfan (Myleran®)
**	Capecitabine (Xeloda®)
**	Chlorambucil (Leukeran®)
	Crizotinib (Xalkori®)
**	Cyclophosphamide (Cytoxan®)
	Dasatinib (Sprycel®)
	Erlotinib (Tarceva®)
**	Estramustine phosphate (Emcyt®)
**	Etoposide (Toposar®)
	Everolimus (Afinitor®)
**	Fludarabine (Oforta™)
	Fluoxymesterone (Halotestin®)
	Gefitinib (Iressa®)
** OR FLAT	Hydroxyurea (Hydrea®)
	Imatinib (Gleevec®)
	Lapatinib (Tykerb®)
	Lenalidomide (Revlimid®)
**	Lomustine (CeeNU®)
** OR FLAT	Melphalan (Alkeran®)
**	Mercaptopurine (Purinethol®)
	Methotrexate (Rheumatrex®; Trexall™)
	Mitotane (Lysodren®)
	Nilotinib (Tasigna®)
	Pazopanib (Votrient™)
	Ponatinib (Iclusig®) see note
**	Procarbazine (Mutulane®)
	Ruxolitinib (Jakafi™)
	SORafenib (NexAVAR®)
	SUNItinib (Sutent®)
**	Temozolomide (Temodar®)
	Thalidomide (Thalomid®)
**	Thioguanine (Tabloid®)
**	Topotecan (Hycamtin®)
**	Tretinoin (Vesanoid®)
	Vandetanib (Caprelsa®)

**	<b>Drugs NOT Requiring Consult</b>
	Anastrozole (Arimidex®)
	Bicalutamide (Casodex®)
	Exemestane (Aromasin®)
	Flutamide (Eulexin®)
	Letrozole (Femara®)
	Megestrol (Megace®)
	Methyltestosterone (Android®)
	Nilutamide (Nilandron®)
	Tamoxifen (Nolvadex®)
	Toremifene citrate (Fareston®)

\*\* MEDICATION DOSE BASED ON PATIENT'S WEIGHT (milligram/kilogram OR milligram/meter<sup>2</sup>)

NOTE – ponatinib (Iclusig®) is available through "ARIAD PASS" Patient Access & Support Services, after approval the drug is shipped to patient's home by Biologics Pharmacy

<b>Reviewed / Approved by:</b> LIJMC Pharmacy & Therapeutics Committee	5/14/14
<b>Reviewed / Approved by:</b> LIJMC Medical Board	7/22/14
<b>SIGNATURES: (Signatures are on file.)</b>	
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<b>X</b>	Date:
Margaret Murphy, Chief Nursing Officer (LIJ)	
<b>X</b>	Date:
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