



House Staff Orientation to the MGH Pharmacy Department 2007-2008

The Department of Pharmacy welcomes the new house staff to the Massachusetts General Hospital. Our mission is “loved-one centered” patient care and patient safety.

DRUG INFORMATION

The Pharmacy Department provides drug information to all health care professionals and patients throughout the hospital 24 hours a day.

- Please page the pharmacist for drug information questions
 - May use online-paging through the Partners paging system by looking up “Pharmacy”.
- Every patient care unit has pharmacists assigned directly to the unit.
- If on a unit, refer to the pharmacist's beeper numbers posted on the patient care units.

Please also consult the Medication Education Safety and Approval Committee (MESAC) website: <http://intranet.massgeneral.org/mesac/>

Adverse drug reactions may be reported on the new Safety Reporting Form on-line.

FORMULARY AND MEDICATION POLICIES AND PROCEDURES

- All formulary decisions are approved by the Medication Education Safety and Approval Committee (MESAC), a subcommittee of the Medical Policy Committee.
- MESAC is also responsible for policies and procedures from drug procurement to administration.
- The Committee has physician, nursing, pharmacy and administrative representation.
- Information about medication reconciliation and reminders about sound-alike, look-alike drugs (SALAD) are available on the MESAC website.

DRUG CLASSIFICATIONS

The hospital uses the following drug formulary classifications in the inpatient setting:

Available

- Have been approved by MESAC for use within the hospital and hospital-based clinics and are generally available without restriction
- Generic drugs are dispensed when possible
- Please contact the pharmacist covering the specific patient care unit or consult the formulary on-line on all clinical work stations (updated every 6 months)
- Guidelines for drug administration in the ICUs are on-line as well.

Available with Restrictions:

- Have been approved, with restrictions, by MESAC for use within the hospital.
- Generally available, but require approval of a specialist (e.g. Infectious Disease, Cardiology, Hematology, and/or Pharmacy).

Not Available for General Use:

- Not routinely carried by the pharmacy because MESAC has not approved them for general use or use with restrictions
- In exceptional circumstances, the Pharmacy may special order the medication, after the pharmacist has consulted with the physician
- If a patient has been maintained on a specific medication at home that is not available in the hospital, and an acceptable substitute is not available, the physician may allow the patient to use his/her own supply of medication. In such instances, an order for the patient to "take own (drug)" must be written.

Investigational Drug:

- Approved for experimental ("non-FDA approved") use within the hospital by the Human Research Committee
- Authorized investigators must obtain approval when these drugs are used in established protocols
- Only authorized investigators may use the drugs from these protocols.

Samples:

- The Hospital has a Sample Inventory Management System (SIMS) program
- Allows for samples to be issued provided that the proper documentation is recorded on the SIMS sheets
- Samples may not be used for patients while they are in-house.

Note about herbals/nutritional supplements:

- MESAC recommends that physicians include, as part of the admission process, any pertinent history of herbal supplement use
- Due to little drug-drug and drug-disease interaction documentation in the medical literature, use of these products may make it difficult to monitor and care for the patient
- The Pharmacy will not obtain any herbal products that are not listed in the Formulary.

INPATIENT MEDICATION ORDER WRITING

- All inpatient medication orders are to be written in the computerized provider order entry system under Medication, IV Fluids, or TPN modules or using the Sets and Templates. Medication orders written in General Care will not be accepted.
- All fields should be completed using the appropriate choices in the drop-down fields. Orders entered as "accept as typed" (free text) have no clinical or allergy checking.

- To improve patient safety, a select set of interventions provides alerts of drug-drug interactions, allergies and formulary issues and often require documentation.
- If a drug does not appear in the look-up, it may not be on formulary or the spelling may be incorrect. Please contact the unit pharmacist or refer to the online formulary located on all clinical work stations under Partners Clinical Applications.

Antibiotics

- Certain antibiotics are restricted to ordering via approval from the Infectious Disease Unit
- When an order is written for one of these drugs, the name of the I.D. physician who approved the order must be included.
- Some drugs have special restrictions. The list is subject to change based on ongoing culture and sensitivity testing, drug availability and price changes.

Amikacin	Ertapenem	Pentamidine
Amphotericin liposomal	Foscarnet	Piperacillin/Tazobactam
Amphotericin lipid-nebulized	Ganciclovir	Posaconazole
Atovaquone	Imipenem/Cilastatin	Quinine
Atovaquone/proguanil	Itraconazole	Quinupristin/Dalfopristin
Aztreonam	Ivermectin	Ribavirin IV INH
Cefotaxime	Leflunomide	Rifampin IV
Ceftazidime	Linezolid	Ticarcillin/Clavulanic Acid
Ciprofloxacin IV	Meropenem	Tigecycline
Clofazimine	Micafungin	Voriconazole
Colistin	Moxifloxacin	
Daptomycin	Nitazoxanide	

Unacceptable abbreviations

Unacceptable abbreviations, symbols, and dose designations can be found in the Clinical Policy and Procedure Manual, in the section "Abbreviations: Appropriate Use to Help Prevent Errors".

UNACCEPTABLE ABBREVIATION AND / OR SYMBOL DOSE EXPRESSION	INTENDED MEANING	MISINTERPRETATION	CORRECTION
Apothecary symbols	Dram Minim	Misunderstood or misread	Use the metric system "ml" "mg" "mcg"
BT	Bedtime	Mistaken as "BID"	Use "bedtime"
IU	International Unit	Misread as IV	Use "unit"
µg	Microgram	Mistaken for "mg"	Write out microgram or use "mcg"
Per os	Orally	The "os" can be mistaken for "left eye"	Use "PO", "by mouth" or "orally"
qn	Nightly or at bedtime	Misinterpreted as "qh" every hour	Use "nightly"
ss	Sliding scale	Mistaken for "55"	Spell out "sliding scale"

UNACCEPTABLE ABBREVIATION AND / OR SYMBOL DOSE EXPRESSION	INTENDED MEANING	MISINTERPRETATION	CORRECTION
U or u	Unit	Misread as "0" or "4" causing a ten fold or greater overdose	Use "unit"
No zero before a decimal dose (.5 mg)	0.5 mg	Misread as 5 mg	Always use a zero before a decimal when the dose is less than a whole unit
MS MSO4 MgSO4	Morphine Morphine Sulfate Magnesium Sulfate	Confused for one another. Can mean morphine sulfate or magnesium sulfate	Write "morphine sulfate" or "magnesium sulfate"
Q.D., Q.O.D.	Latin abbreviation for once daily and every other day	Mistaken for each other. The period after the Q can be mistaken for an "I" and the "O" can be mistaken for "I"	Write "daily" and "every other day"
H.S.	Half strength or hour of sleep (at bedtime)	Mistaken for each other. q H.S. mistaken for every hour	Write out "half-strength" or "at bedtime"
Zero after a decimal point (1.0 mg)	1 mg	Misread as 10 mg if decimal point not seen	Do not use terminal zeros for doses expressed in whole numbers

Reference: ISMP (www.ismp.org) and Lesar et al. JAMA 1997; 277:312-317 and JCAHO Abbreviations List

Allergies

- ***The computerized provider order entry system and the Pharmacy will not accept admission patient orders without documentation of allergy status. It is helpful to provide information regarding the nature of the reaction-e.g., "penicillin-rash".***
- Allergies must be entered in POE before medication orders can be entered. Either choose from the list provided or search for a particular drug from the dictionary look-up.
- "NKA" means that the patient has been asked and does not have a drug sensitivity history.
- "Unknown" means that an adequate history was not obtained. The prescriber will be reminded by POE every 24 hours until any allergy is identified or changed to "NKA".

OUTPATIENT PHARMACY SERVICES

Prescriptions are filled for MGH patients and employees (including house staff) and their dependents.

Outpatient pharmacies are located:

- MGH Main Campus on the first floor of Wang Building
 - Hours: 9am-5:30pm Monday-Friday, and 9am-3pm Saturday and 9am-12:30pm Sunday and holidays.
 - Phone number: 617-724-3100

- Fax number: 617-726-3789
- MGH Revere Health Center at 300 Ocean Avenue, Revere
 - Hours: 8:30am-5:30pm Monday-Thursday and 8:30am-5pm Friday
 - Phone number: 781-485-6015
 - Fax number: 781-485-6042
- Mass General West at 40 Second Avenue, Waltham
 - Hours: 9am-5:30pm Monday-Friday
 - Phone number: 781-487-4390
 - Fax number: 781-487-4391

They accept all major credit cards and most major insurance plans.

GENERAL PRESCRIPTION GUIDELINES

- In conformance with Massachusetts Formulary Law, a prescription is complete when it contains the following:
 - Date of issue
 - Name, address, and telephone number of prescriber
 - Name and address of patient (**for prescriptions filled at MGH Outpatient Pharmacy, please also provide unit number, date of birth and insurance information**)
 - Name, strength, quantity, and dose of medication
 - Directions for use and any required cautionary statements
 - Number of refills (and "NO REFILLS" circled if appropriate)
 - Signature of prescriber
 - Printed name of prescriber.
- Patients of MGH prescribers as well as MGH employees and their families may have their prescriptions filled at MGH outpatient pharmacies.
- Each prescription may have only one drug product per prescription blank.
- In Massachusetts it is mandatory for a pharmacist to dispense a less expensive "interchangeable" (generic equivalent) drug product unless the physician writes the words "NO SUBSTITUTION" in the space provided on the prescription blank.
- Should you change the directions on a prescription, the prescription will need to be rewritten. The third-party computer system will not allow an early refill.
- For free care patients, the MGH has initiated a Free Care Formulary, which is available on the PCOI web site.

- In order to decrease errors, please fax ALL prescriptions. A verbal prescription order will only be accepted in case of an emergency. Please fax prescriptions needed for surgery the night before the procedure.
- Please use the special fax cover sheet when faxing discharge prescriptions to the outpatient pharmacy.

CONTROLLED SUBSTANCE PRESCRIPTION POLICIES

- All medications in Federal schedules II through V are considered controlled substances.
- Physician's Drug Enforcement Administration (DEA) number should be included on all prescriptions for controlled substances.
- House Officers may temporarily use the hospital's DEA registration number in association with a personal suffix number to prescribe controlled substances in the conduct of hospital business.
- In Massachusetts, prescriptions for controlled substances in Schedules III, IV, V with PRN or "Ad Lib" refills are not refillable. The prescriber must designate on the prescription blank the number of refills authorized or a definite time period with proper directions for use.

SCHEDULE II (C-II) POLICIES

- Examples: morphine and oxycodone/acetaminophen (Percocet)
- Must be filled within thirty (30) days of the date written on the prescription
- Cannot be refilled
- Cannot be prescribed by a physician verbally (i.e. called in over the phone) except under extreme emergencies
- Can be transmitted electronically, but the hard copy of the prescription must be presented before the medication is dispensed.
- Maximum of a 30-day supply
 - Exceptions: dextroamphetamine and methylphenidate when used in the treatment of narcolepsy and ADHD. Those prescriptions may be filled for up to a 60-day supply. The diagnosis must be indicated on the prescription.
 - *Prescriptions for methadone are valid only if the drug is used as an analgesic and not part of a maintenance or detoxification program. In addition, State law requires that the physician write the words "for pain" on prescriptions for methadone.

SCHEDULE III MEDICATIONS

- Examples: acetaminophen with codeine (Tylenol #3) and hydrocodone with acetaminophen (Vicodin)
- May only be filled for up to a 30-day supply at a time

- Prescriptions for C-III medications may be refilled a maximum of 5 times or up to 6 months, whichever terminates first if so authorized.

SCHEDULE IV MEDICATIONS

- Example: diazepam
- May be filled a maximum of 5 times or up to 6 months (whichever terminates first), if so authorized.

SCHEDULE V MEDICATIONS

- Example: guaifenesin with codeine (Robitussin AC)
- Refills not set by law, but expire after 1 year and depend on professional judgment by the prescriber and the pharmacist.

SCHEDULE VI MEDICATIONS

- In Massachusetts, all medications which require a prescription and do not fall into Schedules II-V are Schedule VI and are considered controlled substances.
- May be refilled for up to 1 year.

MISCELLANEOUS INFORMATION

- A physician:
 - Is prohibited from prescribing controlled substances in Schedule II, III, and IV for his/her own personal use
 - Is prohibited from prescribing medications in Schedule II for any member of his/her immediate family except for emergency use
 - May not dispense medication unless it is for the “immediate treatment” of a patient. All further quantities must be dispensed by prescription
 - May not write a prescription for an employee not under his/her care.

PRESCRIPTION PAD CONTROL

- The Massachusetts General Hospital prescription pad is issued to a specific physician for his/her personal use.
- The physician is responsible for the security and control of the pad issued. These pads should be carried by the prescriber and secured in a locked area when not in use.
- Stolen or lost prescription pads should be reported to Police and Security.
- At the time a physician leaves the employment of Massachusetts General Hospital, unused prescription pads should be destroyed.

PRESCRIPTION PAD ORDERING INFORMATION

- New physicians (if their service office doesn't have their new prescriptions) may place an initial order for personalized prescription pads by calling the Pharmacy Office at ext. 6-5125 between 8:00 am and 4:30 pm, Monday through Friday
- They will receive a form that needs to be completed and sent to Standard Register.
- To reorder prescription pads,
 - Complete the Prescription Reorder Form located at the front of the pad.
 - Remove a prescription blank, staple it to the reorder form, and mail it to Standard Register in a timely fashion.
 - Prescription pads will be mailed directly to the physician's preferred mailing address within 10 working days.