

MEDICATION SURVEY FOLLOW UP FORM INSTRUCTIONS
MSR-FUP, VERSION B: 08/13/2005
QxQ Prepared: 09/10/2005

I. GENERAL INSTRUCTIONS

The Medication Survey Follow Up Form (MSR-FUP) form is completed after the participant's Exam 2 clinic exam visit to obtain medication information that was not available during the clinic visit. The purpose of the MSR is to assess medication usage in the two weeks preceding the examination date. Information on both prescription and non-prescription drugs and herbals is ascertained.

Interviewers require certification in interviewing techniques and familiarity with the data entry procedures for paper and electronic versions of the form (references: Data Entry System manual and the "General Instructions for Completing Paper Forms"). Transcribers and coders of medication information also require certification. Whenever a transcriber has any difficulty in transcribing a medication, s/he is to consult with the Clinic Manager to clarify the problem before proceeding. Header information (ID Number, Contact Year, and Name) are completed in the format described in that document.

II. SPECIFIC INSTRUCTIONS

A. Medications Transcription

Section A (MEDICATION TRANSCRIPTION) is divided into three components to document information about each medication used by the participant: (1) Transcription, (2) Interview, and (3) Medication Coding. Transcription includes recording in column (a) the medication name, in column (b) concentration (strength), and in column (c) the instructions for administration of each medication used within the two weeks prior to the interview. The interview portion consists of determining and recording in column (d) whether the medication was taken within the last 24 hours and (e) why the patient is taking the medication (e.g. for blood pressure, sugar, arthritis, etc). Medication Codes are coded using the DMS version of the MEDISPAN Medication Dictionary and recorded in column (f) (this column is not included on paper version of form). The transcription of the medication name (column a), concentration (column b), and instructions for administration (column c) is done by a trained transcriptionist prior to the interview with the participant or by an interviewer in conjunction with the administration of the questions in column (d). The coding of the medications from the DMS medication dictionary is done later by a trained coder after the interview is completed.

Begin this process by asking the participant to gather all of her/his medications that were not already transcribed during the clinic visit. For each medication, ask the

participant to read the information from the medication label. In column (a), transcribe the medication name (in BLOCK LETTERS if using a paper form), followed by the concentration in column (b), and instructions for administration in column (c), beginning with Item 4. Include all parts of the medication name and any numbers and/or letters that identify the strength (concentration). For keying purposes, the following format should be used when transcribing the medication name and concentration. For example:

<u>Column (a)</u>	<u>Column (b)</u>
AMPICILLIN	250 mg
AMPICILLIN LIQUID	125mg/5ml
NOSTRIL	1/2 %
ANACIN MAXIMUM STRENGTH	=====

Also copy any numbers and codes which follow or are part of the name. For example:

ANACIN-3	STUARTNATAL 1 + 1
ACEROLA C (100 MG)	ILETIN I NPH
TRIAMINIC12	S-K AMPICILLIN
OVRAL28	CALTRATE 600 + VITAMIN D
ORTHO-NOVUM 10/11-28	

If in doubt, it is preferable to add information that may be insignificant. This will help later in identifying (and coding) a medication.

To facilitate the recording process some standard abbreviations have been established.

A

Acetaminophen = APAP	Antibiotic = ANTIBIO
Aluminum = AL	Arthritic = ARTHR
Amitriptyline = AMITRIP	Aspirin = ASA
Antihistamine = ANTIHIST	Aspirin, Phenacetin and
Ammononium = AMMON	Caffeine = APC

B

Balanced Salt Solution = BSS	Buffered = BUF
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C

Caffeine = CAFF	Chloride = CL
Calcium = CA	Chlorpheniramine = CHLORPHEN
Capsules = CAP	Codeine = COD
Carbonate = CARBON	Compound = CPD or CMP or CMPD
Chewable = CHEW	Concentrate = CON
Chlordiazepoxide = CHLORDIAZ	

D

Decongestant = DECONG
Dextromethorphan = DM
Dioctylsodium Sulfosuccinate = DSS

Dipropionate = DIPROP
Docusate Sodium = DSS

E

Expectorant = EXP

Extra = EX

F

Ferrous = FE
Fluoride = F

Formula = FORM

G

Gluconate = GLUCON
Glyceryl Guacolate = GG

Guaifenesin = GG

H

Hydrochloride = HCL
Hydrochlorthiazide = HCTZ

Hydrocortisone = HC
Hydroxide = HYDROX

I

Inhalation = INHAL I

Injection = INJ

J

Junior = JR

L

Laxative = LAX
Liquid = LIQ

Long Acting = LA
Lotion = LOT

M

Magnesium = MG
Maximum = MAX

Minerals = M
Multivitamins = MULTIVIT

N

Nitroglycerin = NTGN

O

Ointment = OINT

Ophthalmic = OPTH

P

Penicillin = PCN
Pediatric = PED
Perphenazine = PERPHEN
Phenobarbital = PB

Phenylpropanolamine = PPA
Potassium = K
Potassium Iodide = KI
Powder = PWD

Phenylephrine = PE

Pyrilamine = PYRIL

R

Reliever = REL

S

Simethicone = SIMETH

Sodium = SOD

Solution = SOLN

Strength = STR

Suppository = SUPP

T

Tablets = TAB

Theophyllin = THEOPH

Suspension = SUSP

Sustained Action = SA

Sustained Release = SR

Syrup = SYR

Therapeutic = T

Time Disintegration = TD

V

Vaccine = VAC

Vitamin = VIT

W

With = W

Each drug name should be written out even if the same name or a portion of the name appeared in the previous drug. Do not use ditto marks (") to indicate a repeat of a previous item.

Sometimes the drug name includes numbers or letters which could be mistaken for dosage. Having these numbers or letters as part of the drug name helps in selecting the appropriate code. Therefore, it is better to record all the information related to medication name and concentration on the form in a standard format. The following guidelines are offered for standardization.

Medication Transcription

- * Print complete names using block capital letters.
- * Record all identifying characters and numbers referring to concentration.
- * Record instructions for administration completely as written on the labels using standardized abbreviations if desired.
- * Include as much identifying information as possible.

Sometimes the dosage form may appear to be part of the drug name since a few companies have trademarks for their dosage forms. For example, Enseals for enteric coated tablets and Kapseals or Pulvules for capsules. You may record these

names as identifying information.

Combination Drugs

Combination medicines contain two or more drugs in a single pill or tablet. Some combination medicines such as Dyazide come in only one fixed combination (hydrochlorothiazide 25 mg and triamterene 50 mg); these combination medicines do not generally list the strength. Record DYAZIDE, in the space medication name and do not record anything for concentration.

Other combination medicines such as Inderide are available in more than one fixed dose combination (propranolol 40 mg and hydrochlorothiazide 25 mg; or propranolol 80 mg and hydrochlorothiazide 25 mg); these combination medicines generally list the strength as in "Inderide 40/25" or "Inderide 80/25." For these medicines, record, for example, INDERIDE, in the space for name, and "40/25" or "80/25" after the name as the concentration. For example:

Drugs containing two or more medications:

Example of fixed dosage:

Dyazide (hydrochlorothiazide and triamterene) code "DYAZIDE"

Examples of variable dosage:

Inderide 40/25 (40 mg Inderal, 25 mg hydrochlorothiazide) code
"INDERIDE 40/25"

Inderide 80/25 (80 mg Inderal, 25 mg hydrochlorothiazide) code
"INDERIDE 80/25"

* Do not record flavors of products and whether the preparations are sugar-free or sodium-free.

Concentration

Most drug concentrations are given in grams, milligrams or micrograms. Record as written on the label using the abbreviations "gm" for grams, "mg" for milligrams and "mcg" for micrograms. Rarely the dosage may be given in grains. Use the abbreviation "gr" for this.

When strength is not recorded as milligrams (mg) record all numbers, digits and characters used to denote concentration; this includes:

.	- decimal point	gm = gram(s)
ml	- milliliter	gr = grain(s)
/ml	- per milliliter	mg = milligram
mEq	- milliequivalents	mcg = microgram

hr - hour
/hr - per hour
% - percent Note: When the abbreviation, "PC" (percent) is used, record percent symbol, "%."

SPECIFICS:

- * Record strength of combination drugs where strength is separated by a "/" here.
- * Liquid medicine concentration is often written in mg/ml (milligrams per milliliter). For example, Ampicillin 125 mg /5 ml, is recorded as: "AMPICILLIN" for name and "125 mg/5ml" for concentration.
- * Concentration for some medicines may be written as a percentage. For example: Alupent 0.6%, is recorded as: "ALUPENT" for name and "0.6%" for concentration
- * Concentration for insulin is generally "U100" or 100 units per milliliter." This is often written as "100/ml" or "100U/ml." Record Insulin concentration as "U100" unless another strength is listed on the label.

NOTE: Do not record the quantity or number of pills/tablets dispensed.

If more than 23 medications not brought to the clinic visit are reported by the participant, only 23 medications are coded and keyed, selected according to the priorities described below. If it is necessary to defer the assignment of priorities for medications to be transcribed, the name and strength of each additional medication is recorded on the back of page 3 of the paper form, until 23 medication names are selected for transcription and coding. Medications may be prioritized during transcription by combining the transcription and interview components.

Prioritization is performed only if there are more than 23 medications and is based on the following algorithm: prescription medications first; then aspirin, aspirin-containing medications and anti-inflammatory preparations (aspirin, Alka-Seltzer, headache powders, cold medicine, medication for arthritis); followed by other over-the-counter preparations; then vitamins and food supplements and any other medications last.

Example: _____ MEDICATION SURVEY FORM

B. MEDICATION TRANSCRIPTION

Transcribe the NAME followed by the CONCENTRATION and INSTRUCTIONS FOR ADMINISTRATION of each medication in the spaces below. List all ingredients for nutritional supplements OR make a copy of label and affix to form (continue on the second line if needed).

	B CONCENTRATION	C INSTRUCTIONS FOR ADMINISTRATION	D "DID YOU TAKE THIS MEDICATION IN PAST 24 HOURS?"	E "WHAT IS THE REASON YOU TAKE THIS MEDICATION?"
<p style="text-align: center;">A</p> <p>MEDICATION NAME</p> <p>ENTER NAME EXACTLY AS PRINTED ON LABEL.. ENTER "888" IF LABEL UNCLEAR...INCLUDE YOUR BEST EFFORT AT TRANSCRIBING. ENTER "999" IF MEDICATION CANNOT BE TRANSCRIBED AND NOTE REASON IN NOTES.</p>			<p>YES – 1, NO - 2 DON'T KNOW – 7 REFUSED – 8 MISSING – 9</p>	<p>DON'T KNOW – 7 REFUSED – 8 MISSING – 9</p>
4.	<div style="border-bottom: 1px solid black; padding-bottom: 2px;">NORVASC</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">5mg</div>	<div style="border-bottom: 1px solid black; padding-bottom: 2px;">1 daily</div>	<div style="border-bottom: 1px solid black; padding-bottom: 2px;"> <input checked="" type="radio"/> 2 7 8 9 </div>	<div style="border-bottom: 1px solid black; padding-bottom: 2px;">Blood Pressure</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">8 9</div>
5.	<div style="border-bottom: 1px solid black; padding-bottom: 2px;">KCL</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">20mEq</div>	<div style="border-bottom: 1px solid black; padding-bottom: 2px;">1 daily</div>	<div style="border-bottom: 1px solid black; padding-bottom: 2px;"> <input type="radio"/> 2 7 8 9 </div>	<div style="border-bottom: 1px solid black; padding-bottom: 2px;">Low Potassium</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">8 9</div>

For any medications that you are unable to transcribe, seek supervisor assistance. If still unable to transcribe enter 999 and the reason in the notes. After seeking assistance, if you can transcribe at least a portion of the medication label, but are unsure about the transcription, precede the information transcribed by a 888. Set aside any containers which have no clear label and/or identification or medications

without containers for later transcription by a trained interviewer.

Enter your JHS technician/interviewer code number in Item 28a (Transcriber code number). The code number of the person coding the medication is entered in Item 28b. The date on which the medications are coded is entered in Item 29c.

Column (d). USE IN PAST 24 HOURS

After the transcription of the medication name, concentration, and instructions for administration, or the verification of the accuracy of the transcription and its use within the last 2 weeks, the interviewer ascertains the use of each medication within the past 24 hours, while showing the participant each separate container. The following question is asked for each medication:

d. "Did you take this medication in the last 24 hours?"

If probing is required to assist the participant in remembering, the question may be repeated, specifying a time on the previous day. For example, "Have you taken this medication since 10:00 a.m. yesterday?"

A MEDICATION NAME	B CONCENTRATION	C INSTRUCTIONS FOR ADMINISTRATION	D "DID YOU TAKE THIS MEDICATION IN PAST 24 HOURS?" YES - Y, NO - N DON'T KNOW - D	E "WHAT IS THE REASON YOU TAKE THIS MEDICATION?" DON'T KNOW - 7 REFUSED - 8 MISSING - 9
4. NORVASC	5mg	1 daily	<input checked="" type="radio"/> Y N D	
5. KCL	20mEq	1 daily	Y <input checked="" type="radio"/> N D	

Repeat this process for all medications, e.g., transcribe or verify the transcription of the medication/concentration and ask the question in column (d). After this has been completed, probe the participant on whether all medications taken in the previous two weeks are included. For any additional medications recalled by the participant, record the names and answer the questions with as much detail as possible. If there is any doubt, arrange for a review during the 24-hour pick up or phone call during which the participant can provide accurate information.

During the rest of the Medication Survey interview or during a subsequent interview, the participant may recall other medications or vitamins taken during the past two weeks. Their name, concentrations, and instructions for administration, are transcribed in columns (a), (b), and (c), respectively, and last ingestion (use) is recorded in column (d) at this time, just as if they had been in the medication bag. However, the number of medications in the bag is not changed. This documents that information on some medications were provided from the participant's memory.

Column E. Reason for Taking Medication

Record verbatim the reason that the participant gives for taking this medication. If s/he does not know, record DON'T KNOW. Or if s/he refuses to respond, record REFUSED. If the item is legitimately missing, record MISSING.

Column (f). CODE NUMBER. (NOT VISIBLE ON PAPER FORM)

The 14-digit medication code numbers are found in the DES version of the Medication Dictionary which has been distributed to the Exam Center. The drug names are listed in alphabetical order. Drug names that begin with a number, ditto ("), or a dash (-) are listed first. If a drug name is separated by a hyphen, the portion of the name preceding the hyphen is listed in alphabetical order.

If you encounter a drug name which is not in the dictionary, do not guess at a match. Simply set the status code to Q (questionable) so that the pharmacist at the Coordinating Center can develop a code number and update the dictionary.

Numbers that appear in the dictionary are used to differentiate between products. Before coding a drug entry, determine whether the numbers which are recorded are part of the name or are strength/concentration information. Numbers referring to strength/concentration are not used in the matching process for medication coding.

Some drug products use a suffix to distinguish between combination products containing the same primary drug. For example:

Darvon = propoxyphene hydrochloride
Darvon N = propoxyphene napsylate
Darvon Cmpd = propoxyphene hydrochloride with aspirin and caffeine
Darvon with ASA = propoxyphene hydrochloride and aspirin

When coding a medication which contains more than one word, look for a match of the entire name in the dictionary. If the name matches, enter the corresponding code. If a complete match cannot be found, but the dictionary has a single entry for the ingredient(s) in the medication (usually the first word of the drug name), and there are no other entries containing this word, select the corresponding code. This

occurs most often when:

- both the brand and generic name are transcribed, but only one is given in the dictionary;
- the form of the drug is transcribed, but not given in the dictionary;
- the seller's name is transcribed, but is not listed in the dictionary.

It is critical that the other words in the transcribed drug name do NOT involve additional ingredients.

Examples:

CORDARONE/AMIODARONE	not in the dictionary; code as AMIODARONE, which is listed.
DIMETAPP ELIXIR	not in the dictionary; code as DIMETAPP, which is listed.
ECKERD ALLERGY RELIEF TABS	not in the dictionary; code as ALLERGY RELIEF, which is listed.
TYLENOL NO. 3	not in the dictionary; cannot code, since "NO.3" could designate another ingredient; in fact, it designates codeine. It can be coded by searching for the abbreviation of Tylenol's ingredient with codeine: APAP W CODEINE, which is in the dictionary.

In order to put drug names on the prescription label, pharmacists may use abbreviations. Unfortunately, these abbreviations are often not standardized. Some frequently used abbreviations, however, occur in the Medication Dictionary. For example:

APAP = acetaminophen	HC = hydrocortisone
ASA = aspirin	HCl = hydrochloride
CAFF = caffeine	HCTZ = hydrochlorothiazide
Cl = chloride	IV = intravenous
CMP = compound	K = potassium
COD = codeine	M = minerals
DM = dextromethorphan	SR = sustained release
Fl = fluoride	T = therapeutic
GG = glycerolguaiacolate	XR = extended release

B. Interview

This portion of the Medication Survey is administered by the nurse-clinician or a trained interviewer.

For Item 24, ask if medications were taken in the past two weeks for the nine listed reasons.

The following synonyms may be given in response to participant questions.

- a. High blood pressure = hypertension
- c. Angina or chest pain = heart pains
- d. Control of heart rhythm = medicine for fast or irregular heart rate or heart beats
- e. Heart failure = congestive heart failure, not heart attack
- f. Blood thinning = anticoagulation
- i. Leg pain when walking = claudication

NOTE: Stroke does not include TIA nor "slight strokes" which lasted less than 24 hours.

For example, if the participant had taken medication for high blood pressure and claudication and no other listed conditions, Item 24 would be coded as follows:

24. Were any of the medications you took during the past two weeks for:
[If "Yes," verify that medication name is on medication record.]

	Yes	No	<u>Don't</u> <u>Know</u>	Refused	Missing
a. High Blood Pressure	(1)	2	3	4	5
b. High Blood Cholesterol	1	(2)	3	4	5
c. Angina or Chest Pain	1	(2)	3	4	5
d. Control of Heart Rhythm	1	(2)	3	4	5
e. Heart Failure	1	(2)	3	4	5
f. Blood Thinning	1	(2)	3	4	5
g. Diabetes or High Blood Sugar	1	(2)	3	4	5
h. Stroke	1	(2)	3	4	5
i. Leg pain when walking	(1)	2	3	4	5

If any of the conditions are answered affirmatively, be sure that the medication is recorded in Section B. The interviewer, however, can not ask the participant to identify which medication was used to treat any of the conditions. For example, if the participant reported taking a medication to lower blood pressure during the last two weeks (Item 24.a), and no recognizable antihypertensive medications were recorded in Section B and the participant did not give blood pressure as a reason for taking any of the medications transcribed from her/his medication bag, the interviewer may probe to determine if the names of all medications taken during the last two weeks were recorded. If the person indicates that the names of all her/his medications have been transcribed, the interviewer can not probe further to determine which medication was used to treat the high blood pressure. The interviewer can however say something similar to: "You did not mention that any of your medication bottles were a medicine for blood pressure. Was that an oversight or is it possible that you left that medication at home?" If they left the medication at home, go back to Item 2 and 3 to indicate that not all medications were brought, and determine a time for follow up.

C. ADMINISTRATIVE INFORMATION

25. Enter the date of data collection.
26. Enter the method of data collection by PAPER or COMPUTER
27. Enter the 3-digit JHS interviewer ID of the person completing this form.