The medical record is an important part of patient care, yet too often it is difficult to use. Patients’ charts are overflowing with information – problem lists, medication lists, disease-oriented flow sheets, laboratory flow sheets, preventive screening flow sheets, immunization lists, and previous histories and physicals. A physician must review multiple pages to find what he or she needs. Then, he or she has to take chronologically listed but unrelated information and mentally reorder it by disease or organ system, gather today’s data, and finally integrate them to develop an appropriate treatment plan.

To provide high-quality, efficient care, it helps to have an up-to-date integrated summary of the patient’s health. The integrated summary is a single concise page kept topmost on the left side of the chart, opposite the most recent progress note, readily available for quick review prior to evaluating the patient. Its major benefits include the following:

- It summarizes and replaces the patient’s demographic data, problem list, past medical history, immunization list, medication list and flow sheets, and it provides an abbreviated plan both for today and for future visits all on a single page.
- It organizes problems, medications and flow-sheet parameters by disease or organ system, not simply chronologically, and integrates them to make their relationships more evident over time.
- It eases documentation. The integrated summary requires minimal data entry at each visit, and it simplifies progress note documentation.
- It can be easily and inexpensively implemented with nothing other than a photocopier and handwritten entries, or programmed as a component of an electronic medical record (EMR).
- It offers a template that can be altered to accommodate the work styles and preferences of any physician.

How it works – template layout and integration
An example of an integrated summary template useful for most adult patients in the author’s practice in Oxnard, Calif. Conflicts of interest: None reported.

Michael A. Stelman, MD
### Integrated Summary

**Patient Label**

- Age/Insurance

**Last Name, First Name**

- Meds *rx#M+ #RF

**Address**

- 1

**City, State, Zip**

- 2

**Phone Number**

- 3

**Date of Birth**

- 4

**Medical Record Number**

- 5

---

**PROBLEM LIST: Code Status**

**FLOW SHEET**

-_SCREEN & PREV’N / IZ Flu

**Allergy**

- PE

**Surgery**

- Breast Exam

- Mammogram

**Other Hosp**

- Pap / PSA

**OB/Birth Hx**

- Rectal / Prostate

**Inactive Problems**

- Col Ca - Fec Occ B

**Tob**

- xsEtOH

**Drugs**

- fGlu

**Family Med Hx:**

- F

- M

**Sibs**

- Children

**Social Hx:**

- Household

- Work
The integrated summary, a one-page, up-to-date summary of the patient’s health kept on the left side of the chart, makes it easier to provide high-quality, efficient care.

The integrated summary organizes problems, medications and flow-sheet parameters by disease or organ system and makes their relationships more evident over time.

The integrated summary requires minimal data entry at each visit, and it simplifies progress note documentation.

The integrated summary captures six visits’ worth of key patient data per page. This might span six weeks in a patient with severe hypertension whose medication is being aggressively titrated or six years in a healthy patient getting yearly mammograms. When the right side becomes full, you can overlay a blank copy of the template, cutting off the three panels on the left and binding the new page to the chart.

The summary is integrated in that it includes data on one page from multiple (and now unnecessary) parts of a traditionally organized chart. More importantly, however, it is integrated in that the relationships between problems, medications and measured flow-sheet parameter results are evident on a single page, and their changes (compensated or uncompensated, improving or progressing) are readily apparent over time. This allows the physician to follow, for example, the response of the glycohemoglobin (HbA1c) or blood pressure as a function of the number of drugs and their dosages.

At each visit, the physician enters dynamic data into the integrated summary as follows: First, newly available outside test results for tests drawn at the previous visit are entered into the previous visit column. Then current symptoms, vital signs and other physical or in-office lab findings are entered into the column for the current visit (a colon “:” indicates pending results of outside labs or imaging studies). Finally, new medications or dosage changes and newly ordered lab or imaging tests are entered into the column for the next visit (again, with colons to indicate that results are pending).

The clinical example on page 36 describes the case of a hypothetical middle-aged female patient with a fairly complicated set of problems and shows how the integrated summary would be completed over several visits. The sample progress note on page 38 shows how references to the integrated summary can shorten documentation.

Key template sections

The key sections of the integrated summary are as follows:

- **Patient demographics.** Patient demographic data is recorded across the top of the integrated summary. Relatively static data (e.g., name) appears in the upper-left panel. Demographic data that might change more frequently is entered on the right side of the integrated summary and includes the patient’s age and insurance.

- **“Expanded” problem list.** The middle panel on the left is the problem list, where problems are organized by disease or organ system following some sensible order (see below). Listing problems in the temporal order of their diagnosis requires more mental integration of the data than ordering problems by disease or organ system.

- Problems are entered on the problem list leaving room above and below for subsequent or future entries. For example, as I conduct a new patient history, if the patient tells me about chronic hepatitis first, I may enter this information in the column for the current visit (a colon “:” indicates pending results of outside labs or imaging studies). Finally, new medications or dosage changes and newly ordered lab or imaging tests are entered into the column for the next visit (again, with colons to indicate that results are pending).

- The clinical example on page 36 describes the case of a hypothetical middle-aged female patient with a fairly complicated set of problems and shows how the integrated summary would be completed over several visits. The sample progress note on page 38 shows how references to the integrated summary can shorten documentation.

**DISEASE/ORGAN SYSTEMS**

The author finds it more efficient to order the patient data on his integrated summary by disease/organ system (see below), rather than chronologically.

- Regional
  - Neurologic
  - Psychiatric
  - Ophthalmologic
  - ENT/Head and neck
  - Cardiovascular
  - Pulmonary
  - Gastrointestinal
  - Nephrologic/Urologic
  - Obstetric/Gynecologic
  - Endocrine/Metabolic

- Distributed
  - Dermatologic
  - Orthopedic
  - Hematologic

- Global
  - Genetic
  - Immunology/Allergy
  - Rheumatology
  - Oncology

- External
  - Infectious disease
  - Environmental/Trauma

To provide high-quality, efficient care, it helps to have an up-to-date summary of the patient’s health.

When the right side of the template is full, physicians can simply overlay a new copy to begin documenting subsequent visits.

In the problem list section of the integrated summary, problems are organized by disease or organ system, rather than chronologically.
### Integrated Summary

<table>
<thead>
<tr>
<th>(Patient Label)</th>
<th>Age/Insurance</th>
<th>(Last Name, First Name)</th>
<th>Meds*rx#M+#RF</th>
<th>Address</th>
<th>Phone Number</th>
<th>Date of Birth</th>
<th>Medical Record Number</th>
<th>Date</th>
<th>PROBLEM LIST: Code Status</th>
<th>Do Not Resuscitate 6/7/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Insurance</td>
<td></td>
<td>Smith, Susan</td>
<td>1+1</td>
<td>123 Main St.</td>
<td>805-555-5555</td>
<td>4/1/1950</td>
<td>12345</td>
<td></td>
<td></td>
<td>Do Not Resuscitate 6/7/00</td>
</tr>
<tr>
<td>1/2/00</td>
<td>A+ / no insurance / Medicaid</td>
<td></td>
<td></td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Do Not Resuscitate 6/7/00</td>
</tr>
<tr>
<td>2/3/00</td>
<td></td>
<td></td>
<td>1+2</td>
<td>Discontinued</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Do Not Resuscitate 6/7/00</td>
</tr>
<tr>
<td>3/4/00</td>
<td></td>
<td></td>
<td>1+2</td>
<td>Hct 12.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Do Not Resuscitate 6/7/00</td>
</tr>
<tr>
<td>4/5/00</td>
<td></td>
<td></td>
<td>25</td>
<td>Captopril 25 bid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Do Not Resuscitate 6/7/00</td>
</tr>
<tr>
<td>5/6/00</td>
<td></td>
<td></td>
<td>Valsartan 80 (1+1)</td>
<td>Fluvastatin 40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Do Not Resuscitate 6/7/00</td>
</tr>
<tr>
<td>6/7/00</td>
<td></td>
<td></td>
<td></td>
<td>Aspirin 325</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Do Not Resuscitate 6/7/00</td>
</tr>
</tbody>
</table>

### FLOW SHEET

**CVA 5/6/00 R hemiparesis, CT brain L MCA embolus due to a-fib**

**HTN onset 1990**

**A-fib dx 5/6/00 p CVA, ECHO 5/7/00 EF 45%, anticoagulation Rx**

**Hypertension dx 3/4/00 due to new DM target**

**DM dx 3/4/00 glucometer 350**

**DM dx 3/4/00 glaucometer 350**

**PAST MEDICAL HISTORY / IZ: Td**

**Allergy**

**Family Med Hx:**

**Other Hosp**

**OB/Birth Hx**

**Inactive Problems**

**Tob**

**Family Med Hx:**

**Social Hx:**

**Work:**

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To understand how a physician would use the integrated summary in practice, consult the example on page 36 and the text below, both of which are color coded to facilitate understanding. This example details the care of a hypothetical middle-aged female patient. Physicians can download a blank copy of the integrated summary template at www.aafp.org/fpm/20030400/33thei.html.

1/2/00: The patient presents for an initial visit. She gives a history of hypertension (HTN), familial risk for coronary artery disease (CAD) and smoking (all of which are added to the problem list), and her exam shows wheezing leading to increased dyspnea. She has no drug allergies and the PMH and PMF sections are short. Her BP is 160/110. My problem list expands to show that her smoking was not recent. She has a glycated hemoglobin (HbA1c) of 9.5 and a fasting glucose of 200 mg/dL, which are added to the problem list. She is started on a diuretic and ACE-I and her lab tests are ordered for next visit.

2/3/00: The patient follows up. The problem list is further expanded to show that she heeded my recommendation to quit smoking. Integrated flow-sheet parameters for BP, heart rate, and peak flow assist me in recognizing that her BP is now normal. The problem list now includes that she has returned to work. I am concerned about her HTN and the results of last month's lab tests are recorded in the response to the glibenclamide ordered above. I also augment her daily flow sheet. Since she is no longer a candidate to begin insulin therapy, the screening section reminds me to review her PMF section.

3/4/00: The lab results that have returned are entered into the preceding column, including the elevated fasting glucose and HbA1c of 6.4 and 9.5, respectively. The screening section now recommends that she is a candidate to begin oral hypoglycemic agents and her PMF section shows a fasting glucose level of 110 mg/dL. I am concerned about her weight and the results of last month's lab tests are recorded in the response to the glibenclamide ordered above. I also augment her daily flow sheet. Since she is now a candidate to begin insulin therapy, the screening section reminds me to review her PMF section.

4/5/00: The PMF section records a new adverse reaction (cough) to her ACE-I, and the next medication column documents a new adverse reaction (cough) to her ACE-I, and the next medication column of CDP shows a new diagnosis of chronic obstructive pulmonary disease (COPD). Her problem of smoking is expanded to document the intervention. The past medical history (PMH) section is filled in from her history, and the immunizations lead me to remind her that now she needs the pneumococcal polysaccharide vaccine (PPV) and the inactivated influenza vaccine (IFV). The problem list now includes that she has returned to work.

5/6/00: The patient presents with hemiparesis and is found to be in atrial fibrillation (a-fib) and is admitted to the hospital. Problem list is updated accordingly.

6/7/00: The patient returns to the office for follow-up after discharge from a stroke-rehabilitation center. Unfortunately, her paresis has not improved. The problem list now includes that she is a candidate to begin annual fecal occult blood testing and cards are given, with results later appended.

April 2003 • www.aafp.org/fpm • FAMILY PRACTICE MANAGEMENT • 37
The integrated summary includes a section for the patient’s medication list, where like agents are grouped together.

A flow sheet allows physicians to monitor pertinent clinical parameters over time.

The flow-sheet values are all easily correlated to (and hence integrated with) the medication dosages immediately above and the problem or disease listed to the left.

The prevention section shows recommended screening tests’ frequencies.

The integrated summary can be customized to suit physicians’ documentation preferences.

A SAMPLE PROGRESS NOTE

The integrated summary simplifies the progress note; it does not duplicate it. For example, for the April 5, 2000, patient visit documented on page 36, the SOAP progress note might read as follows:

S: 50-year-old female returns as directed for one-month follow-up of multiple medical problems, including hypertension (HTN) and diabetes mellitus (DM). She is on half a dozen medications, as documented on integrated summary (IS). Patient notes a cough since starting captopril.

O: Suboptimal home and clinic glucometer readings and glycohemoglobin levels, improved compensated blood-pressure readings and normal monitoring liver function test results are recorded on IS. Other normal findings on exam were …

A/P: 1. HTN: Now compensated but intolerant of ACE-I. Change to angiotensin receptor blocker per IS. Return to clinic in one month.

2. DM: Suboptimal control. Augment glyburide dose per IS.

3. Hypercholesterolemia medication: Monitoring labs per IS.

4. Prevention: Screening tests per IS.

The lower right panel of the integrated summary records interval screening exams and tests, their recommended frequencies and their results. I also document last menstrual period and lactation here to remind me of drug contraindications in patients who are at risk of conception or who are breast-feeding.

Screening and prevention.

Plan. At the very bottom of the lower right panel are a few lines to abbreviate the interventions done today, tests to follow up, next appointment interval and other medications are not recorded in the medication list but, instead, are briefly annotated in the “Plan” section at the bottom of the page.

“Practical” flow sheet. Opposite the problem list is a blank flow sheet. For any problems that require the monitoring of clinical parameters over time, I enter those parameters directly across from (or near) their listed problem. I also list the suggested reassessment frequency for a stable, compensated patient, where needed. The limited space forces me to be practical and limit the parameters I follow for any one disease to only the most important ones (see “A clinical example,” page 37). These responses are all easily correlated to (and hence integrated with) the medication dosages immediately above and the problem or disease listed to the left.
plans. Often, this is sufficient to guide my next visit without even referring to my previous progress note.

**Making it your own**

The use of an integrated summary considerably reduces the time needed to address problems at every stage of the assessment. For new patients, I fill in the blank fields as I interview them and briefly dictate “See integrated summary for current medications, problems and history” in my progress note. For returning patients, I can quickly refresh my memory of their health status, review my prior plan and make a preliminary task list for today’s appointment, usually in less than a minute. It takes only a few seconds during my interview to record today’s data into the flow sheet, write any medication adjustments into the medication list and record an abbreviated plan. To avoid a duplication of efforts, I simply make reference to these entries in my dictated progress note (see “A sample progress note” on page 38). Having a single page facilitates compulsively keeping my lists of problems, medications, lab results and screening tests due up-to-date. For a few patients with complex problems, I must keep separate traditional (though organized) medication and problem lists when they exceed the space allotted on the integrated summary.

When sending patients to consultants or the emergency room, or when giving records to patients who are moving away, I often copy just the integrated summary. When dictating admission notes, I often do so from just this one page without the need to resolicit information from the patient or search through the chart. Colleagues covering acute office visits in my absence have a quick summary to guide them as they care for my patients.

The integrated summary template presented here may not suit every physician’s work style or approach to primary care. However, because the integrated summary is a concept, not a fixed layout, it can be customized to suit physicians’ documentation preferences. Requiring only a little practice, the integrated summary is a valuable tool that can help physicians improve the quality and efficiency of patient care.

Send comments to fpmedit@aafp.org.