Improving the Primary-Specialty Care Interface

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No Disclosures to Report
San Francisco Safety Net

Primary Care

11 non-profit community clinics
5 hospital-based clinics
11 DPH community clinics (COPC)
skilled nursing facility
county jails

Specialty Care

SFGH/UCSF

Salaried Academic Faculty
Comprehensive Specialty Services
>579,000 ambulatory visits annually
35% specialty care, 20% diagnostics

37% uninsured
35% Medicaid
17% Medicare

SFGH Annual Report, Fiscal Year 2011-2012
eReferral Workflow

PCP submits electronic referral

Consult reviewed electronically by specialist
*Includes all relevant clinical data from EMR*

Appropriate specialty referral
AND
Pre-referral work-up complete

Nonurgent
Schedule Next Available

Urgent
Overbook

Consult question unclear
Pre-referral work-up incomplete
PCP can manage with guidance

Eventually Scheduled

Never Scheduled

not scheduled and more information requested
Welcome to the eReferral site, which has been developed to handle appointment requests from Community Health Network (CHN) and CHN affiliated providers for outpatient specialty consultations. Routine consultation requests for the below clinics will no longer be accepted by hardcopy, facsimile, or phone. Please follow the steps outlined below in submitting your referral request.

**Medical Specialty Clinics**
- Allergy Adult Clinic
- Cardiology Clinic
- Chest Specialty Service
- Diabetes Services
- Endocrinology Clinic
- Gastroenterology Clinic
- Geriatrics Clinic
- Hematology Clinic
- Liver Clinic
- Neurology Clinic
- Oncology Service
- Renal Clinic
- Rheumatology Clinic

**Womens Health Specialty Clinics**
- 5M Breast Evaluation and Referral Clinic
- Gynecology Clinics
- Obstetric Clinics

**Other Programs**
- Anticoagulation FHC *(No Review)*
- 1M Anticoagulation Clinic *(No Review)*
- Financial Fitness Clinic *(No Review)*
- Comprehensive Pharmacy Care
- Wellness Center *(New!)* *(No Review)*
- Health At Home
- Psychosocial Medicine
- Respite Program
- Stop Smoking Program *(No Review)*

**Surgical Specialty Clinics**
- Cardiothoracic Surgery Service
- 3M Breast Surgery Clinic
- Otolaryngology-Head and Neck Surgery Clinic (ENT)
- General Surgery Clinic
- Neurosurgery Clinic
- Concussion eScheduling *(No Review)*
- Ophthalmology/Optometry eScheduling *(No Review)*
- Orthopaedic Surgery Clinic
- Plastic Surgery Clinic *(No Review)*
- Podiatry Clinic
- Urology Clinic
- Vascular Surgery
- Vasectomy Service at FHC

**Diagnostic Services**
- Audiology eScheduling *(No Review)*
- Echocardiography Clinic *(No Review)*
- EEG Service *(No Review)*
- Holter Monitor *(No Review)*
- Treadmill Exercise Testing (ETT) *(No Review)*
- Sleep Study
- Radiology CT Service
- Radiology Fluoroscopy
- Radiology Mammography Service *(No Review)*
- Radiology MRI Service
- Radiology Ultrasound Service
<table>
<thead>
<tr>
<th>Patient Information</th>
<th>Referring Provider Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>BURNS, ANNETTE NP</td>
</tr>
<tr>
<td>Phone</td>
<td>PagerBox</td>
</tr>
<tr>
<td>ID</td>
<td>Ref Loc: Family Health Center-FHC</td>
</tr>
<tr>
<td>Insurance</td>
<td>Fax:</td>
</tr>
<tr>
<td>Demog</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>City/State</td>
<td></td>
</tr>
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</table>

**Attending Provider Information**

The Referring Provider is an Attending.

**Primary Care Provider Information**

The Referring is the PCP

**All Communication will become part of the Electronic Medical Record (LCR)**

Reason for Consultation

Include pertinent history, physical laboratory findings, and medications.

47 year old female with fatigue and family history of thyroid disease. TSH <0.1 with T3 and T4 high. Alk phos is also high at 230. GGT sl high at 57 all other LFT normal. Thyroid nonpalpable on exam. I am thinking of getting antibody tests. Does she need a iodine uptake scan? Can alk phos be elevated in thyroid disease? Thanks Annette

**Scheduling considerations for this patient**

ino_ConsultHeader
10/29/2012 5:50:24 AM entered by elizabeth murphy

Most patients with hyperthyroidism have a high alkphos due to increased bone turnover (doesn't exactly explain the slightly up GGT however). So would recheck when she's euthyroid. So if no clinical findings (eyes/bruit) suggestive of Graves, very reasonable to get a TSH Receptor antibody with next labs. No need to get a scan at this point. Typically do that prior to ablation or if for some reason we can't make dx of etiology of hyperthyroidism otherwise. So assuming her gland isn't tender on exam/no recent URI (so no evidence thyroiditis) would be reasonable to start methimazole at 5 mg daily (or if she's clinically symptomatic/tachy etc could do 10 mg daily). And then would recheck a TSH/FT4 with the antibody in 4 weeks or so. Wasn't clear if you wanted us to see her or not. Happy to do either way. If you want us to see her just please give lab slip for above for right before the visit. Otherwise, just let me know when f/u labs back.

As a reminder to review with a patient when prescribing methimazole or PTU, both drugs have a very rare but real SE of agranulocytosis. Patients should be instructed to come in immediately for any sore throat, fever, or other sign of infection to have a WBC with diff checked.
PCP initiates referral request

July 2011-June 2012
27,604 new submissions

Specialist reviews

- Appropriate and complete consults: 60% (16,466)
  - Scheduled: need to be seen in clinic
    - Non-urgent routine appointment: 50% (13,783)
    - Urgent overbook appointment: 10% (2,683)
  - Not initially scheduled: specialist responds to request more information and/or make recommendations
    - Iterative communication as needed
      - PCP provides information, initial evaluation complete, visit needed: 20% (5,641)
      - No appointment 6 months after last exchange: 20% (5,397)

- Consult inappropriate or incomplete or clinic visit not needed: 40% (11,138)
Impact on Wait Times

- **Endocrinology**
- **Rheumatology**
- **Pulmonary**
- **Cardiology**
- **Nephrology**

Wait Time for New Patient Appointment (days)

Months since Initiation of E-referral
Impact on Specialty Clinic Efficiency

HOW DIFFICULT WAS IT TO IDENTIFY the reason for the consultation or clinical question before interviewing and examining this patient today?

Percentage of specialists responding “somewhat difficult” or “very difficult.” * p-value <0.05

N = 618 (413 medical, 205 surgical)

## Impact on Clinic Complexity

### Endocrinology

**Fiscal Year 2011 - 2012**

Top Ten Most Frequent Dx by Visit Count

<table>
<thead>
<tr>
<th>Count</th>
<th>%</th>
<th>ICD9 Description</th>
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<tbody>
<tr>
<td>690</td>
<td>32%</td>
<td>Graves disease without crisis</td>
</tr>
<tr>
<td>376</td>
<td>17%</td>
<td>thyroid cancer</td>
</tr>
<tr>
<td>255</td>
<td>12%</td>
<td>nontoxic uninodular goiter</td>
</tr>
<tr>
<td>220</td>
<td>10%</td>
<td>thyrotoxicosis nos w/o crisis</td>
</tr>
<tr>
<td>140</td>
<td>6%</td>
<td>testicular hypofunction</td>
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<tr>
<td>114</td>
<td>5%</td>
<td>pituitary neoplasm</td>
</tr>
<tr>
<td>104</td>
<td>5%</td>
<td>nontoxic multinodular goiter</td>
</tr>
<tr>
<td>97</td>
<td>4%</td>
<td>anterior pituitary hyperfunction</td>
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<tr>
<td>93</td>
<td>4%</td>
<td>primary hyperparathyroidism</td>
</tr>
<tr>
<td>84</td>
<td>4%</td>
<td>hypothyroidism nos</td>
</tr>
</tbody>
</table>
Impact Overview

Primary Care
- Reduced wait times
- Quick access to specialist expertise
- Primary – specialty dialogue is recorded in real time in EMR
- Case-based “CME”
- Virtual co-management keeps patients in PCMH, reduces need for external care coordination
- More “balls” in PCP court

Specialty Care
- Reduced wait times
- Avoidance of incorrect referrals
- Ability to clinically triage
- Improved clarity of consultative question
- Increased efficiency of in-person visits with pre-consultative guidance
- Opportunities to educate, learn
- Increased “case-mix” in clinics/greater complexity among patients
eReferral Team

eReferral Steering Committee
• Director: Alice Chen
• Specialty Director: Lisa Murphy
• Evaluation: Delphine Tuot, Justin Sewell
• IT Specialist: Kjeld Molvig

eReferral Medicine Reviewers
• Cardiology: Mary Gray
• Diabetes: Mimi Kuo, Audrey Tang
• Endocrinology: Lisa Murphy
• Gastroenterology: Justin Sewell
• Hematology: Brad Lewis
• Liver: Mandana Khalili
• Oncology: Judy Luce
• Pulmonary: Adithya Cattamanchi, Antonio Gomez
• Renal: Sam James
• Rheumatology: John Imboden

eReferral Women’s Health Reviewers
• Breast Evaluation: Diane Carr, Mary Scheib w/Judy Luce
• Gynecology: Rebecca Jackson and faculty
• Obstetrics: Rebecca Jackson and faculty

eReferral Radiology
• Radiology lead: Alex Rybkin
• MRI, CT, U/S, fluroscopy: Nancy Omahen

eReferral Surgery Reviewers
• Breast Surgery: Kelly Ross-Manashil with Peggy Knudson
• ENT: Christina Herrera with Andrew Murr
• General Surgery: Danielle Evans with Bob Mackersie
• Orthopedics: Diane Putney, Dorothy Christian, Brenda Stengele with Ted Miclau
• Neurology: Sean Braden with Cheryl Jay
• Neurosurgery/Neurotrauma: Sean Braden with Geoff Manley
• Plastics: Erin Fry with Scott Hanson
• Urology: Ben Breyer and fellow
• Podiatry: Erika Eshoo

SF DPH Community Clinics
• Lisa Johnson

San Francisco Community Clinic Consortium
• David Lown

Funders
• San Francisco Health Plan
• Kaiser Permanente Community Benefits
• Blue Shield of California Foundation
• California Health Care Foundation
questions/comments
achen@medsfgh.ucsf.edu