GAP / Need Assessment

- Experts agree that “nobody’s perfect” ([www.iom.edu](http://www.iom.edu) / Institute of Medicine Reports)
- Dermatologist & support team try to do a great job but admit that “mistakes” or “errors” (iatrogenic problems) occur
- Outcome Goal / Gap-Error Avoidance
  - Identify points for potential error in your practice
  - Note at least one thing you can do (make the diagnosis) to prevent & reduce errors your practice

Learning Objectives

- Identify examples of iatrogenic problems in a medical dermatology clinic including diagnostic errors
- Consider “best practice” data, where available, to prevent iatrogenic problems
- Develop systems within the practice to reduce iatrogenic problems

Iatrogenic Problems

- Do no harm?
  - *Primum non nocere (Latin)* Ethical issue (Non-malfeasance)
    - Hippocrates in his treatise Epidemics, in axiom that reads, “As to diseases, make a habit of two things -- to help, or at least, to do no harm.” Howard Markel (New Engl. J. Med. 2004 350:2026) (not in Hippocratic Oath)


MEDICAL ERRORS

- Commonly reported statistics by the Institute of Medicine published in 2000 estimates that between 44,000 and 98,000 hospitalized patients die every year from medical errors, and another 1 million are injured.¹


MEDICAL ERRORS

Medication errors alone are now the single most prevalent source of medical malpractice claims, according to the Physician Insurers Association of America, a consortium of 56 physician- and dentist-owned malpractice insurers.²
Report by Office of Inspector General in the Dept. of Health and Human Services estimates 13.5% of all hospitalized Medicare pts experience adverse events, and such events result in the death of 1.5% of these patients.

Available at http://oig.hhs.gov

Added that another 13.5% experience minor adverse events.

Of the major and minor adverse events combined, 44% are considered preventable.

To Err is Human: Building A Safer Health System

Released: November 1, 1999 Consensus Report, Institute of Medicine

http://www.nap.edu/catalog/9728.html

Health IT and Patient Safety: Building Safer Systems for Better Care

Released: 11/8/2011 Institute of Medicine


REFERENCES:

1. How Doctors Think  Jerome Groopman

MEDICAL ERRORS

Majority of errors due to flaws in physician thinking NOT technical mistakes

One study of misdiagnoses resulting in serious harm:

80% accounted for by cascade of cognitive errors

Another study of 100 incorrect diagnoses:

4% inadequate medical knowledge

Misdiagnosed because they fell into “cognitive traps”

Cognitive Traps!
Great discussions regarding the culture of medicine stresses working together as a team with everyone at every level helping and having a say in providing safe patient care. Pronovost responsible for MANY of the steps being taken today in hospitals, clinics, and offices all around the world to ensure patient safety.

3. **The Checklist Manifesto – How To Get Things Right**  
   Atul Gawande, also author of *Better* and *Complications*

CHECKLISTS

“They provide a kind of cognitive net.”

“They catch mental flaws inherent in all of us.”

Flaws of

---memory

---attention

---thoroughness

---provide reminders of critical and important steps”
ULTRAVIOLET LIGHT THERAPY CHECKLIST

Identify patient

Two identifiers

Determine UVA vs UVB

Patient response

- Color coded treatment sheets
- Color coded instrument panel
Say treatment time aloud to patient & have patient repeat back to nurse/technician

Have second nurse/technician oversee UVA treatment

CUTANEOUS SURGERY

Identify patient

Two identifiers

Review

Allergies

Current Medications

Medical history (pacemaker, bleeding disorder, dysrrhythmia, seizure disorder)

Nurse /Doctor identify lesion(s) with patient

Anesthetic properly labelled

Specimen bottle(s) properly labelled

Open one specimen bottle at a time

ISOTRETINOIN

Childbearing potential

Laboratory

Liver enzymes

Triglycerides

Renal function

Headache

Abdominal pain/diarrhea

Risk of inflammatory bowel disease

Depression/suicidal ideation

(This is not comprehensive list!)
### Table I. Corticosteroid classes

<table>
<thead>
<tr>
<th>Structural class</th>
<th>Class A: Hydrocortisone type</th>
<th>Class B: Triamcinolone acetonide type</th>
<th>Class C: Betamethasone type</th>
<th>Class D1: Betamethasone dipropionate type</th>
<th>Class D2: Methylprednisolone acetate type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure</strong></td>
<td>No substitutions in the D ring, except C21 short-chain esters</td>
<td>C16,17-cis-diol or - ketol</td>
<td>C16 methyl substitution</td>
<td>C16-methyl substitution</td>
<td>C16-No methyl substitution</td>
</tr>
<tr>
<td>Cross-reactions</td>
<td>Cross-reactions with D2</td>
<td>Budesonide specifically cross-reactions with D2</td>
<td>Budesonide</td>
<td>C17/C21-long-chain ester</td>
<td>C16-No halogenation</td>
</tr>
<tr>
<td>Patch test substance</td>
<td>Tixocortol 21-pivalate</td>
<td>Budesonide</td>
<td>Tramcinolone acetonide</td>
<td>C17-long-chain ester</td>
<td>C21-possible site chain</td>
</tr>
<tr>
<td><strong>Class 2 Potent</strong></td>
<td>Amcinonide (Galacton 0.1% O, L, Q)</td>
<td>Desoximetasone (Topicort 0.25% C, 0.05% Q)</td>
<td>Betamethasone dipropionate (Diprosone 0.05% O, L)</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% O)</td>
<td>Diflucortol pivalate (Finarol 0.05% O)</td>
</tr>
<tr>
<td></td>
<td>Budesonide</td>
<td>Diflucortol pivalate</td>
<td>Betamethasone valerate</td>
<td>Betamethasone valerate (Betovate 0.1%)</td>
<td>Diflucortol pivalate (Florone, Maxiflor 0.05%)</td>
</tr>
<tr>
<td></td>
<td>Fluocinonide (Laura 0.05% C, O, G, S)</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% O)</td>
<td>Betamethasone valerate (Betovate 0.1%)</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, Q)</td>
<td>Diflucortol pivalate (Florone, Maxiflor 0.05%)</td>
</tr>
<tr>
<td></td>
<td>Halcinonide (Molot 0.1% C, O, S)</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% O)</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, Q)</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, Q)</td>
<td>Diflucortol pivalate (Florone, Maxiflor 0.05%)</td>
</tr>
<tr>
<td><strong>Class 3 Upper mid-strength</strong></td>
<td>Amcinonide (Galacton 0.1% C)</td>
<td>Tramcinolone acetonide (Anticoat, Kenalog 0.1% C, O)</td>
<td>Flucinonide</td>
<td>Tramcinolone acetonide (Anticoat, Kenalog 0.1% C, O)</td>
<td>Flucinonide (Galacton 0.1% C)</td>
</tr>
<tr>
<td></td>
<td>Fluocinonide</td>
<td>Flucinonide (Laura 0.05% C, O, G, S)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Flucinonide (Galacton 0.1% C, L)</td>
</tr>
<tr>
<td></td>
<td>Fluocinolone</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Flucinonide (Galacton 0.1% C, L)</td>
</tr>
<tr>
<td></td>
<td>Halcinonide (Molot 0.05% C)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Flucinonide (Galacton 0.1% C, L)</td>
</tr>
<tr>
<td></td>
<td>Tramcinon (Kenalog, Tione 0.1% C, O)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Flucinonide (Galacton 0.1% C, L)</td>
</tr>
<tr>
<td></td>
<td>Triamcinolone acetonide</td>
<td>Flucinonide (Laura 0.05% C, O, G, S)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Flucinonide (Galacton 0.1% C, L)</td>
</tr>
<tr>
<td></td>
<td>Flucinolone</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Betamethasone butyrate (Betovate 0.05%)</td>
<td>Flucinonide (Galacton 0.1% C, L)</td>
</tr>
<tr>
<td><strong>Class 4 Mid-strength</strong></td>
<td>Amcinonide (Galacton 0.1% C)</td>
<td>Mometasone fumate (Biacon 0.1% O)</td>
<td>Mometasone fumate (Biacon 0.1% O)</td>
<td>Mometasone fumate (Biacon 0.1% O)</td>
<td>Hydrocortisone valerate (Westcot 0.2% O)</td>
</tr>
<tr>
<td></td>
<td>Fluocinolone acetonide</td>
<td>Clozocortone pivalate (Clozol 0.1% C)</td>
<td>Clozocortone pivalate (Clozol 0.1% C)</td>
<td>Clozocortone pivalate (Clozol 0.1% C)</td>
<td>Hydrocortisone butyrate (Prednicarbate 0.1% O)</td>
</tr>
<tr>
<td></td>
<td>Halcinonide (Molot 0.05% C)</td>
<td>Dexamethasone acetate (Topicol 0.05% cream)</td>
<td>Dexamethasone acetate (Topicol 0.05% cream)</td>
<td>Dexamethasone acetate (Topicol 0.05% cream)</td>
<td>Hydrocortisone butyrate (Prednicarbate 0.1% O)</td>
</tr>
<tr>
<td></td>
<td>Tramcinolone acetonide</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% L)</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% L)</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% L)</td>
<td>Hydrocortisone butyrate (Prednicarbate 0.1% O)</td>
</tr>
<tr>
<td></td>
<td>Triamcinolone diacetate</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, L)</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, L)</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, L)</td>
<td>Hydrocortisone butyrate (Prednicarbate 0.1% O)</td>
</tr>
<tr>
<td><strong>Class 5 Lower mid-strength</strong></td>
<td>Amcinonide (Galacton 0.1% C)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
</tr>
<tr>
<td></td>
<td>Fluocinonide</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
</tr>
<tr>
<td></td>
<td>Fluocinolone</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
<td>Betamethasone diacetate (Anticoat, Kenalog 0.1% C, O)</td>
</tr>
<tr>
<td><strong>Class 6 Mild</strong></td>
<td>Amcinonide (Galacton 0.1% C)</td>
<td>Flucinonide</td>
<td>Flucinonide</td>
<td>Flucinonide</td>
<td>Flucinonide</td>
</tr>
<tr>
<td></td>
<td>Fluocinolone</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% L)</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% L)</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% L)</td>
<td>Betamethasone dipropionate (Diprosone, Maxidex 0.05% L)</td>
</tr>
<tr>
<td></td>
<td>Triamcinolone acetonide</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, C, O)</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, C, O)</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, C, O)</td>
<td>Betamethasone valerate (Betovate, Voltone 0.1%, C, O)</td>
</tr>
</tbody>
</table>
TEAMWORK IS CRITICAL

- Studies have shown that **team communication and teamwork** are critical factors for patient safety and quality.

- Medical Team Training Program
  - Veterans Health Administration (Neily et al)
  - Pre- and postoperative team debriefings
  - 18% reduction in annual surgical mortality

Pronovost – multiple references


