Adherence!
Improving Patient Compliance

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Objectives

• To describe how well (poorly) patients use dermatological treatment
• To list ways to improve patients' use of medications
• To describe factors that affect patients' satisfaction
Low Hanging Fruit

- We have treatments that are remarkably effective
- Patients don’t always get better
- Consider resistant atopic dermatitis
  - Admit the patient to the hospital, treat them with topical triamcinolone, and they clear up in 3 days
- Do we need a new treatment for atopic dermatitis, or would it be easier to get patients to use the medications we already have
Adherence Definitions

Three Big Reasons for Poor Treatment Outcome

1. Poor Compliance
2. Poor Compliance
3. Poor Compliance

In an anonymous survey of psoriasis patients, 40% report noncompliance!!!

Real Patients: Primary Nonadherence

- Many patients don’t even fill the prescription
- Psoriasis patients are among the worst

Secondary Nonadherence
## September 2007

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Did you apply study product today? Mark YES if you applied study product, or NO if you did not apply study product for each day during the Week 8 – Week 12 study period in the calendar below.

Date of **LAST** Study Product Application: **09 Nov 10**

Remember! Please bring this form with you to your Week 12 study visit.

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Electronic/Self-Reported Adherence

Mean Daily Adherence

\[
y = -0.0009x + 0.9293 \\
R^2 = 0.0561
\]

\[
y = -0.0056x + 0.7439 \\
R^2 = 0.6457
\]

Slope=\(~20\%\)/5 weeks

Tachyphylaxis

TNF-Inhibitor Treatment Retention

Dupan SM, Arthritis & Rheumatism (Arthritis Care & Research) 2009; 61: 560–568
Adherence to Biologics
Acne Adherence

Adherence to BPO 5% Gel Over Time

Days from Baseline

Percent of Adherent Subjects
Atopic Dermatitis Adherence is Worse

\[ y = -0.0013x + 0.3783 \]

\[ R^2 = 0.0294 \]

# Why Are Patients Non-Adherent

<table>
<thead>
<tr>
<th>Poor motivation</th>
<th>The patient may not be particularly bothered.</th>
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<tbody>
<tr>
<td>Secondary gain</td>
<td>Seeking disability or other gain</td>
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<tr>
<td>Lack of trust in doctor</td>
<td>Physician-patient relationship is the foundation</td>
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<tr>
<td>Fear of medication</td>
<td>Founded or unfounded fear of treatment.</td>
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<tr>
<td>Don’t know what to do</td>
<td>Patients may not remember oral instructions</td>
</tr>
<tr>
<td>Burden of treatment</td>
<td>Sometimes the tx is worse than the disease!</td>
</tr>
<tr>
<td>Perceived burden</td>
<td>Sometimes tx seems worse than the disease.</td>
</tr>
<tr>
<td>Passing the responsibility buck</td>
<td>With multiple caregivers, no one may take responsibility</td>
</tr>
<tr>
<td>Forgetfulness</td>
<td>“Pavlov’s dog” problem</td>
</tr>
<tr>
<td>Laziness</td>
<td>No energy to follow treatment.</td>
</tr>
<tr>
<td>Resignation</td>
<td>Some patients have just given up</td>
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</table>
Doctor Can Encourage Better Compliance

- Establish a relationship with patients
- Involve patients in treatment planning
  - Make it easy!
- Don’t scare patients with side effects
- Choose fast acting agents
- See patients back for a return visit
- Give clear, written instructions
You have selected Dr. Andrea O Example. Our full survey takes 2 to 3 minutes. You can stop at any point.

SCORE THIS DOCTOR:

On a scale of '0' to '10', where 0 is the worst possible care and 10 is the best possible care, how would you rate Dr. Example?

Add any additional comments about Dr. Example here. Please identify any particularly good things you noted about the visit, as one of the best ways to encourage people is to give them positive feedback on what they do well. (40 word maximum).

Ratings and comments submitted to DrScore are designed to give feedback to physicians to help them enhance their medical practice. DrScore is not a regulatory body and is not an appropriate venue for issues that need the attention of state or professional authorities.
Good Medical Practice

• Make the right diagnosis
• Prescribe the right treatment
• Get patients to use the treatment
  – Communicate & follow up
  – Project the appearance of empathy
    • Appear caring
Patients Want Caring Doctors

Fig. 1. Relationship between patients’ perception of their doctor’s friendliness and caring attitude and patients’ overall satisfaction.

Interventions to Appear Caring

• Sit down
• Examine patients carefully
  – Palpate the rash
  – Waive a lighted magnifier over lesions
• Asking a few questions about the disease
  – “Your previous treatments have probably been very frustrating…”
• Address psychosocial issues
  – Use support groups
Context Makes Veins Look Blue
What does this context suggest?

Payment due at time of service

Fee for returned checks

Your insurance company requires us to collect your co-payment at the time of service.

The Department of Dermatology requires a copy of your Insurance Card at the time of your visit. Please have your card ready when you check in.

We appreciate your co-operation.
Better?

OUR PRACTICE CONTINUES TO GROW THROUGH REFERRALS FROM OUR PATIENTS. THANK YOU FOR YOUR TRUST AND CONFIDENCE.
Put a clock on the wall behind the patient

- Looking at a watch can be the kiss of death
  - Put clocks behind where patients sit

- I’m doing it now because I care, not because I am in a hurry

- What matters is how it is perceived
Choose a vehicle that the patient will use

- Less messy products seem to be preferred over:
  - Ointment
  - Cream
  - Emollient
  - Gel

Simplify Treatment

Median Adherence Over Time

Percent Adherence

Week of Study
Primary Non-Adherence with Complex Regimens

- Overall primary non-adherence in acne: 27%

Anderson K et al. JAMA Dermatol. 2015;151:623-6
Pearl: visits are your most powerful tool

![Graph showing mean average daily adherence with a linear trend line and moving average]

Add a One Week Return Visit

- Kids with atopic dermatitis
- 0.1% tacrolimus ointment BID
- Return in 4 weeks or 1 week/4 weeks

Betamethasone/Calcipotriene Consistent Results

Why did one study, in green, have worse result at 2 weeks?
Cell Phone Number

- Return visits make people get the medicine and use it
  - Focus on initial adherence also promotes habit
  - A cell phone call can do the same thing
- Giving patients your cell phone number is a powerful statement of how much you care about the patient
  - (whether you answer the phone or not)
- Do Not Preprint Your Cell Phone Number on Your Business Card!
Basic Drug Information Received is Deficient

Table II. Patient knowledge about basic drug information, satisfaction with the consultation, and worries about adverse effects 2 weeks after a consultation according to a questionnaire, n=17.

<table>
<thead>
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<th>Patient knowledge and opinion</th>
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<th>%</th>
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<td>Diagnosis</td>
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<td>41</td>
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<tr>
<td>Duration of treatment</td>
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<td>35</td>
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<tr>
<td>Daily applications by number</td>
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<td>Application dose by quantity</td>
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<td>Fully satisfied with consultation</td>
<td>8</td>
<td>47</td>
</tr>
<tr>
<td>Worried about adverse effects</td>
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Curse of Knowledge

- Better informed people find it difficult to think from the perspective of less well-informed people
- Makes it hard to meet patients’ education needs
Give Instructions in Writing

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Written Instructions

• The Eczema Action Plan
Motivating Kids

• Positive reinforcement
• Sticker calendar
Measuring Adherence by Questionnaire

**Oral treatment mini-questionnaire**
(sensitivity = 0.47 and specificity = 0.89)
Do you remember the name of the last drugs you took?
Have you used these drugs?
Have you forgotten to take these drugs at any time during the treatment period?
Have these drugs improved your acne?

**Topical treatment mini-questionnaire**
(sensitivity = 0.47 and specificity = 0.89)
Do you remember the name of the last drugs you took?
Have you tolerated these drugs well?
Have these drugs been useful for you?
Have you ever stopped taking these drugs because you thought they would do more harm than good?

Self-Reported Adherence in Acne

- Once daily treatment with adapalene-BPO
Adherence in Acne Is Poor

- Acne treatment adherence is poor worldwide
- Adherence based on questionnaire
  - Americas 43%
  - Asia 48%
  - Europe 58%

Predicting Poor Adherence

- **Age (12-15 vs. 16-20)**
  - n=2630
  - Odds Ratio: 1.01
  - p-value: 0.911

- **Gender (male vs. female)**
  - n=2637
  - Odds Ratio: 0.90
  - p-value: 0.221

- **Smoker vs. Non-smoker**
  - n=2607
  - Odds Ratio: 0.97
  - p-value: 0.815

- **Use of moisturizer (yes vs. no)**
  - n=2670
  - Odds Ratio: 0.95
  - p-value: 0.514

- **Skin irritations (no vs. yes)**
  - n=2670
  - Odds Ratio: 1.28
  - p-value: 0.029

- **Clinical improvement (yes vs. no)**
  - n=2596
  - Odds Ratio: 0.14
  - p-value: <0.001

The diagram shows the odds ratios and p-values for different factors predicting poor adherence, with good adherence on the left and poor adherence on the right.
Reminders & Office Visits for Acne

**Mean Weekly Adherence to Once Daily Topical Adapalene 0.1% Gel**

- **Control**
- **Frequent Visits**
- **Electronic Reminders**
- **Parental Reminders**

_Yentzer B et al. JAAD 2011;64:793-5_
• Watch out for oppositional-defiant behavior
• Do not tell teenage patients that other teenagers are non-adherent
  – Teenagers want to be like other teens
• Tell this, “This is the treatment that most teenagers use for this condition”
Side Effects are a Mixed Bag

- Side effects & fear of them can reduce compliance
- Side effects may also be an opportunity
- For acne patients on spironolactone
  - “This drug is a diuretic. In addition to its effect on your acne, you may also notice some weight loss.”
- For scalp psoriasis, tell patients: This may sting...
  - That’s because it is so strong.
  - The stinging is a sign that it is working
  - Most guys don’t have what it takes to use this stuff
Prescribe only “all natural” treatments

• The words we use with patients are important
  – Never label patients “non-compliant”
• Never, ever use the word “steroid” with a mom
• Use reassuring words
  – “All natural”
  – “Complements natural healing pathways”
  – “Holistic”
98 (or more) out of 100 don’t get a serious infection

Triggers

- Calendar
- Specialized packaging
  - Weekly pill box
  - Bubble packaging
- Antifungals creams on top of the sock drawer
- Acne treatment cream on top of (or duct taped to) the toothbrush
Pharmacy Level Coordination

• **Refill reminders**
  – Can result in hoarding

• **Education**
  – Standard education (risks) may make things worse
  – Practical tools to put risk into perspective

• **Coordinate timing of refills**
  – Get them all in sync
  – Tough when multiple pharmacies are involved

• **Can provide “caring”**
Address Cost Issues

• Prescribe low cost medicines
• Give patients a range of options
  – Lower cost generics
  – Higher cost drugs that have greater benefit
• Patient assistance programs
  – Company-sponsored copay or other assistance programs
  – Local indigent pharmacy resources
• Change the priority/urgency
  – Real and perceived cost/benefit
• Encourage patient to share cell phone with the pharmacist
Motivational Interviewing

• Help patients “self-discover”
  – Or at least give them the impression of that

• Many ways this can be used
  – What would you do to remember to take the medication?
  – Is it important to you to be there when your children graduate high school/college?

• Developed for personal interaction
  – Lends itself to web-based survey administration
Terrorism: Using Patients’ Fears

• If you don’t lose weight and take this oral hypoglycemic, we’ll have to put you on insulin shots, and you wouldn’t want that!
  – This, however, makes insulin sound very scary if the patient were to later need insulin
Samples

- I am no longer able to have drug samples in our university clinic

- Using samples
  - Helps patients know the right way to use the medicine
  - Helps get them over the fear of starting a new medicine
  - Begins to get them in the habit
Inertia

- **Powerful force**
  - Opt out vs opt in
    - Dramatically increases retirement plan participation
  - Keeps people from switching medications

- **Also, too much choice isn’t helpful**
  - People choose the middle
Assessing Adherence

• The Honest Truth About Dishonesty
  – “Try to recall the Ten Commandments”

• Also, ask indirect questions
  – “Are you keeping the extra syringes you’ve accumulated refrigerated like you are supposed to?”
  – “What do you do with leftover medication? Is it in a locked cabinet or in the medicine cabinet or do you throw it away?”
Loss Aversion

- Losses make bigger impact than equivalent gains
- Taking a statin
  - If you take this statin regularly, on average, you would live a year longer
  - If you don’t take your statin regularly, on average, you would die a year sooner
- Sunscreen
  - Will keep you looking young
  - If you don’t use it, you will lose the youthful look of your skin

Ariely D. Predictably Irrational
Framing

- A set point, even an arbitrary one, affects perceptions
- A risk that is more likely than being killed by lightning doesn’t sound nearly as bad as a risk that is less likely than a coin flip
- Zero is special
  - 0/100 to 1/100 is different from 1/100 to 2/100
  - 999/1000 nothing bad is different from 1/1000 something bad
Having Something at Stake

- Adherence to meeting attendance
  - You have to charge a registration fee or no one will show up
- If patients have paid a copay, they will use the medication
- On the other hand, if the copay is too high, they are less likely to fill the medication
Saliency

- The chance of a 8 point Richter scale earthquake in San Francisco seems more likely than an earthquake in the western half of the country.
- “If you don’t use sunscreen, you may get a skin cancer” doesn’t have as much impact as “If you don’t use sunscreen, you could end up with a golf ball size skin cancer on your nose, resulting in surgery requiring removal of your nose and placement of a rubber prosthesis.”
Truly Resistant (Non-Adherent) Patients

• It may not be resistant T-cells
• Use physician administered treatments
  – Hospitalization
  – IM triamcinolone
  – Office application of treatments
  – Phototherapy
    • Apply the topicals at the phototherapy visits
Adherence to Biologics

- Adherence to biologics is limited
  - Ask, “Are you keeping the extra syringes you’ve accumulated refrigerated like you are supposed to?”
  - Some doctors have better adherence rates than others
- Provide structure
  - Have patients pick the one or two days of the week that they take the medicine and stick to it
- Don’t scare patients off
  - The treatment is probably safer than driving on a highway
Internet Survey & Contest

• Half the subjects received a weekly email link to the survey
• For each completed survey, subjects were entered to win an iPod Nano
• For 5 of 6 completed surveys, subjects received a $5 gift card

An Online Survey Improves Adherence

The Impact of Weekly Internet Surveys on Adherence Over Time

The graph shows the mean percent adherence over time for two groups: Internet and No Intervention. The adherence rate for the Internet group decreases more slowly than for the No Intervention group, indicating that weekly internet surveys improve adherence.
Conclusions

• Improving adherence is low hanging fruit
  – Adherence is a major issue in the treatment of chronic skin diseases

• Topicals work much better when patients use them

• We can promote better adherence
  – Timing of follow up
  – Easy to use treatments

• We need to look to new ways to enhance patients’ adherence and treatment outcomes