



**Penn**

**Infectious Diseases**

# **An Orientation to the MAPS Problem-Solving Counseling Intervention to Promote ART Adherence**

**Robert Gross, MD MSCE**

**Associate Professor of  
Medicine (ID) and Epidemiology**

**University of Pennsylvania  
Perelman School of Medicine**



# Disclosure

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# Outline

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- **Adherence and Problem Solving**
- **Delivery of MAPS**
- **Case Examples for Discussion**

# Introduction

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- **Antiretroviral therapy is life-saving**
  - Needs to be continuous/lifelong
- **“Drugs don’t work in people who don’t take them”-Koop**
  - Non-adherence is normal behavior
  - Perfect adherence is unrealistic

# Fluidity of Adherence Barriers

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- **Barriers not universal**
  - Depend on setting
  - Depend on person
- **Multiple barriers per individual**
- **Different barriers for:**
  - Different doses
  - Different time-periods

# **Risk Factors (I)**

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- **Active substance abuse**
  - Not past use
- **Regimen Characteristics**
  - Frequency of dosing
  - # of pills
  - Adverse drug effects (perceived or actual)

# **Risk Factors (II)**

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- **Psychobehavioral factors**
  - Depression
  - Lack of social support
  - Stigma/lack of disclosure of status
  - Low health literacy
  - Chaotic lifestyle/competing demands

It appears you have  
Medication Forgetfulness Disorder,  
which, as you can imagine,  
is untreatable.



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# Defining the Problem

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# Brainstorm

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# Decision re: Plan

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# Implement Plan

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# Assessment and Modification

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# Problem Solving Therapy vs. Treatment

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- **Therapy requires training**
  - Many sessions
  - Patients need motivation
  - Added burden of homework
- **Treatment**
  - Goal is just solving problems
  - Problem solver is part of team

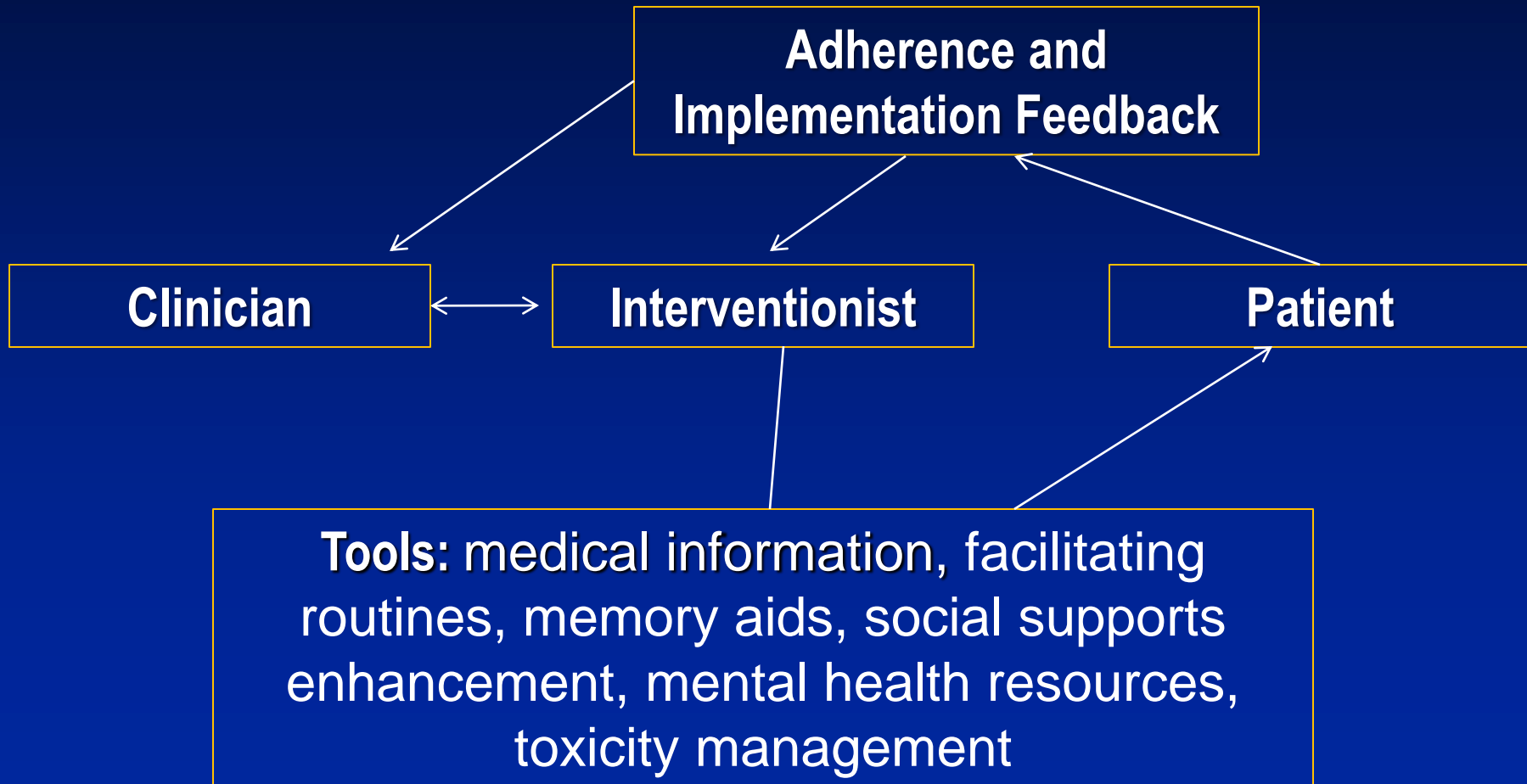
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# Conceptual Framework

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# **Delivery of Intervention**

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- **Initial visit**
  - Duration 60-90 min
- **3 monthly follow-up visits with adherence feedback**
  - Duration 45-60 min
- **Weekly phone calls for 3 mo**
  - Duration 5-20 min
- **Monthly refill calls for 1 yr**
  - Duration 1-5 min

# **Administer Baseline Screening**

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- **Assessment of adherence barriers**
  - Knowledge of regimen
  - Knowledge of desirable adherence
  - Plans if doses missed (if available)
  - Depression (CESD)
  - Substance Use (AUDIT, ASSIST)

# Map Out Typical Day

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- **Need ‘zeitgebers’**
  - Time posts in daily life
  - Suggested list: wake time, ablutions, meals, TV shows, bedtime
- **Query separately about w/e**
- **Use as potential tether for reminders**

# Getting Started

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- **Rapport building key**
  - Admit adherence is difficult
- **Identify barriers**
  - Review screening results
  - Ask open-ended question
    - » Acknowledge there are issues that only they know about
    - » “What do you think might get in the way of taking your meds?”

# Medication Nuts and Bolts

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- Names, doses, restrictions
- Expected & feared side effects
- Plans for missed doses
- Explain meaning of adherence
  - Desired amount
  - Give concrete details (missing more than 2 doses a month means <95%)
  - No safe amount of misses
  - May still have success if missing

# Generating Other Barrier List

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- If unable to generate list, do not brainstorm for barriers
- Offer potential list if needed
  - Side effects of Medication
  - Forget to take meds
  - Busy schedule
  - Too many pills to take at different times
  - Embarrassed to take meds
  - Afraid someone will find out I am taking HIV meds

# Step-1: Merge Barrier Lists

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- Combine those identified by screening and by patient
- Acknowledge shared agenda

# Step 2-Brainstorm

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- **Generate list of solutions for each barrier**
  - What would your best friend / hero do?
  - What would you tell me to do?
  - What would a child do?
  - What would the craziest person you know do?

# Step 3-Select Solution for Each

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- **Joint input by patient and interventionist**
  - Listen to their reasoning for picks
  - Give advice to what's practical
- **Don't go overboard!**
  - Limit # of barriers to 4-5 to be practical
  - Pick one or two solutions for each
- **Set them up for success**
  - Do what's doable to build confidence

# Step 4: Implementation

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- Discuss plans for implenting chosen solutions
- Give encouragement
- Give practical advice for implementation

# **Step 5-Monitoring & Feedback**

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- **Assess for implementation**
- **Assess for appeal**
- **Assess for adherence success**
  - **Use objective measures (e.g., MEMS in MAPS trial, Pharmacy refill in real world)**

# November 2011

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1 2	2 2	3 2	4 2	5 1
6 2	7 2	8 2	9 2	10 2	11 1	12 2
13 1	14 2	15 2	16 2	17 2	18 1	19 1
20 2	21 2	22 2	23 2	24 2	25 1	26 2
27 2	28 2	29 2	30 1			

# JANUARY/FEBRUARY

Days with medication

Days late for refill

MON	TUE	WED	THU	FRI	SAT	SUN
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17

# **Subsequent Visits: Iterate Steps**

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- **Assess what works & continue**
- **Assess what doesn't**
  - Go back to list
  - If needed, go back to brainstorming
- **If new issues arise**
  - Restart process for new barrier

**Questions about  
principles and process?**

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- Adherence and Problem Solving
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# Patient 1

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- **42 yo female**
- **Experienced**
  - 2 prior regimens
  - Failure due to non-adherence
- **Regular weekday schedule**
- **Weekend acknowledged misses**
  - Why might weekends be hard?

# Patient 1 Resolution

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- Identified churchgoing as disruptive to routine
  - Did not suggest change religion 😊
  - Changed time of AM dose
  - Approached provider who she feared would not allow it

# Patient 2

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- **20 yo MSM**
  - Recently dx'd
- **No disclosure**
- **What problems does this create?**
- **What solutions can you offer?**

# Patient 2 Resolution

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- **Utilize interventionist as social support**
  - Someone to talk to
- **Hiding of meds**
  - “Cover story”-HTN, DM
  - Timing of taking to avoid others

**Your chance to present  
tough cases!**

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# Resources

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- **MAPS paper**

Gross R, Bellamy S, Chapman J, et al.: Managed Problem Solving for Antiretroviral Therapy Adherence: A Randomized Trial JAMA Internal Medicine Page: 1-7, Jan 2013.

- **MAPS manual URL**

<http://www.med.upenn.edu/cceb/maps-form.shtml>