

# Recommendations for Education and Counseling to Support Adherence with general population of PLWH

K. Rivet Amico, PhD

No conflicts to report

University of Connecticut

*On behalf of Guidelines Panel*

# RECOMMENDATIONS: EDUCATION/COUNSELING

- Section group consisted of K Rivet Amico, Jane Simoni, Shoshana Kahana, Cynthia Lyles and Catherine Orrell.
- 55 evidence graded manuscripts were provided to section group reviewed for
  - Main content of interventions
  - Identification of categories to nest interventions (type, modalities, targets, interveners)
  - Overall findings

# RECOMMENDATIONS: EDUCATION/COUNSELING

- Recommendations emerged from categorized intervention approaches that had
  - Sufficient evidence base to draw conclusions
  - Clarity in evidence base to draw conclusions
- Recommendations that only had emerging data bases or could otherwise not offer clear conclusions were moved to recommendations for additional research
- All recommendations were reviewed by the full panel and any overlap with other sections adjudicated

# Recommendations

- Individual one-on-one ART education is recommended **(II A)**.
- Providing one-on-one adherence support to patients through 1 or more adherence counselling approaches is recommended **(II A)**.
- Group education and group counselling are recommended; however, the type of group format, content, and implementation cannot be specified on the basis of the currently available evidence **(II C)**.
- Multidisciplinary education and counselling intervention approaches are recommended **(III B)**.
- Offering peer support may be considered **(III C)**.

# Individual one-on-one ART education is recommended (II A)

## 14 intervention studies

Brock et al. 2007  
Collier et al. 2005  
Fairley et al. 2003  
Golin et al. 2006  
Goujard et al. 2003  
Holzemer et al. 2006  
Johnson et al. 2007  
Kalichman et al. 2005

Murphy et al. 2007  
Rawlings et al. 2003  
Safren et al. 2001  
Smith et al. 2003  
Tuldra et al. 2000  
Williams et al. 2006

10 + effects on adherence

1 study (of 8) + effects on biomarkers

High (II)

Strong evidence with important limitations; Strong evidence from observational studies

Strong (A)

Almost all patients should receive the recommended course of action

## Individual one-on-one ART education is recommended (II A)- *caveats*

- **Content** should include actions of antiretroviral medication in treating HIV, common side-effects, adherence and resistance.
- **Knowledgeable trained individuals** can implement effective education intervention.
- Tailored education approaches that emphasize **knowledge acquisition** through discussion, exploration and activities that build skills offer advantages over “information only” approaches (e.g., booklets, information providing without conversation or information checks).
- **Timing and duration** of education has not been clearly established, education strategies appear relevant throughout one’s initiation, use and maintenance of ART.

Providing one-on-one adherence support to patients through 1 or more adherence counselling approaches is recommended (II A).

## 27 studies individuals

Brock et al. 2007 Collier et al. 2005 Fairley et al. 2003 Golin et al. 2006 Goujard et al. 2003 Holzemer et al. 2006 Johnson et al. 2007 Kalichman et al. 2005 Murphy et al. 2007 Safren et al. 2001	Smith et al. 2003 Tuldra et al. 2000 Williams et al. 2006  Dilorio et al, 2003 Dilorio et al, 2008 Johnson et al, 2011 Knobel et al, 1999 Parsons et al, 2005 Pradier et al, 2003 Reynolds et al, 2008	Weber et al, 2004 Mann, 2001 Wagner et al, 2006 Webel, 2010 Wilson et al, 2010 Garcia et al, 2005 Javanbakht et al, 2006 Remien et al, 2005 Koenig et al, 2008
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22/25 had some positive effect on adherence

5/12 positive effects on biological measures

High (II)	Strong evidence with important limitations; Strong evidence from observational studies
Strong (A)	Almost all patients should receive the recommended course of action

# Providing one-on-one adherence support to patients through 1 or more adherence counselling approaches is recommended (II A) - *caveats*

- Evidence is insufficient to provide clear recommendations in terms of type of counseling discussions
  - Cognitive behavioral
  - Patient-centered
  - Motivation-based (e.g., motivational interviewing)
    - All consistently included a focus on motivation, social support, and skills building in client-centered delivery formats.



# Providing one-on-one adherence support to patients through 1 or more adherence counselling approaches is recommended (II A) - *caveats*

- Evidence is insufficient to provide clear recommendations in terms of type of counseling discussions
  - Cognitive behavioral
  - Patient-centered
  - Motivation-based (e.g., motivational interviewing)
    - All consistently included a focus on motivation, social support, and skills building in client-centered delivery formats.
- No clear conclusions could be drawn in relation to:
  - Length of intervention exposure
  - Deliverer
  - Location of delivery (mostly in-clinic)
  - Targeting of intervention to “non-adherers”

Group education and group counselling are recommended; however, the type of group format, content, and implementation cannot be specified on the basis of the currently available evidence (II C)

## 7 intervention studies

Antoni et al., 2006  
Berger et al., 2008  
Chiou et al., 2006  
Chung et al., 2009  
Kalichman et al., 2011  
Sampaio-Sa et al., 2008  
Van Servellen et al., 2005

4 generally + effects on adherence

4 generally + effects on biomarkers

High (II)

Strong evidence with important limitations; Strong evidence from observational studies

Optional (C)

There may be consideration for this recommendation on the basis of individual circumstances. Not recommended routinely

Group education and group counselling are recommended; however, the type of group format, content, and implementation cannot be specified on the basis of the currently available evidence (II C)- *caveats*

- Studies reviewed for this recommendation were heterogeneous in terms of participant groups, geography and methods/targets of group intervention.
- Need clearer separation of counseling groups from education groups.
- Learning more about “intensity” or number of sessions over what period of time would be helpful.
- No research has been conducted on use of “mandatory” groups (e.g., pre-ART start /re-start requirement)

Multidisciplinary education and counselling intervention approaches are recommended **(III B)**.

## 2 intervention studies

Frick et al. 2006  
Levy et al. 2004

### Frick et al 2006

No difference in pharm-refill adherence

Sig difference in VL and change in VL at 12 months [adj]

### Levy et al 2004

Sig difference in adherence (phone based self-report)

No difference in VL or CD4 at ~20 weeks

Medium (III)

RCT evidence with critical limitations

Observational study evidence without important limitations

Moderate (B)

Most patients should receive the recommended course of action. However, other choices may be appropriate for some patients

Multidisciplinary education and counselling intervention approaches are recommended (III B) - *caveats*

- Use of **multidisciplinary teams** is distinct from having multiple team members duplicate efforts or content concerning adherence.
- Each team member had clearly **delineated roles** and covered content specific to their particular areas of expertise.
- More evidence is needed to strengthen this recommendation.

Offering peer support may be considered (III C).

## 9 intervention studies

Chang et al. 2010  
Munoz et al. 2010  
Mugusi et al. 2009  
Nachega et al. 2010  
Pearson et al. 2007  
Ruiz et al. 2010  
Simoni et al. 2007  
Simoni et al. 2009  
Taiwo et al. 2009

5 generally + effects on adherence  
3 generally + effects on biomarkers

Medium (III)	RCT evidence with critical limitations Observational study evidence without important limitations
Optional (C)	There may be consideration for this recommendation on the basis of individual circumstances. Not recommended routinely

## Offering peer support may be considered (III C) - *caveats*

- Diversity in type of peer-based approach
  - 4 included studies had monitored administration of ART
  - 4 targeted peer support
  - 1 Peer included psycho-education
- Similar to individual counseling, no clear conclusions could be drawn in relation to:
  - Type, length, location or content of peer delivered intervention

# Suggestions

...and research needed to become recommendation

- Dyad counseling
  - Couples based and treatment partner based counseling (Rawlings et al., 2003; Remien et al., 2005\*)
    - Diverse approaches with dissipating effects
- Including partners in education and in counseling however may have a number of benefits especially if it can be expanded to include risk reduction in serodiscordant couples



# Suggestions

...and research needed to become recommendation

- Cue based reinforcement/contingency management
  - Javanbakht et al., 2006: +effects on VL reduction
  - Rigsby et al., 2000: sig better adherence 4 weeks on intervention/no difference between pre/post 8 weeks post d/c
- Additional research is needed to understand and quantify the potential effects of contingency management through cash incentives
  - Particularly in terms of dissipation of effects after removal of external incentives

# Suggestions

...and research needed to become recommendation

- Technology

- Additional research is needed to better understand the merge of technology with education/counseling.
  - Text based outreach?
  - Email or web-based exchanges?
  - In-time adherence counseling?

# Areas in need of targeted focus

- **Adoption of biological markers** as primary outcomes
  - May require longer periods of follow-up
- **Feasibility, acceptability and cost-effectiveness** research
- **Distillation of intervention effects** (what are the active ingredients)- get more specific in recommendations
- Identification of **characteristics of effective interventions** (duration, modality, intensity, targeting)
- Targeted research on **practices commonly used** in care
  - Treatment partner; Pre-ART start or re-start programs; run-in periods
- **Dissemination** research
- **Implementation** research
- **Quality assurance/Standard of care/Operations** research

**Would allow for clarity and more concise evidence based recommendations.**

# Thank you!

- The IAPAC guidelines reviewed were the result of sustained efforts from numerous individuals including:
- Panel Members

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# Thank you!

to the authors, research teams,  
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