

Inadequate Adherence is the Rule, Not the Exception

“Typical adherence rates are about 50% for medications and are much lower for lifestyle prescriptions and other more behaviorally demanding regimens.”

– Haynes, McDonald, Garg. JAMA 2002;288:2880-2883.

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Why is Adherence Poor? A Systems Perspective

“Systems are perfectly designed to get the results they achieve.”

– Don Berwick

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A Starting Point for Improving Adherence: *The Patient Is the Primary Source of Care*

“People with chronic conditions are the principal caregivers. Health care professionals should be consultants supporting them in this role.

Each day, patients decide what they are going to eat, whether they will exercise and to what extent they will consume prescribed medicines.”

– Bodenheimer et al, JAMA 2002

- How can health care support this role?

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What is Self-management Support?

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Definitions

- *Self-management* – Actions taken by patients in caring for chronic conditions (e.g. taking medications, exercise, managing functional limitations)
- *Self-management support* – Actions by health care providers that strengthen and support self-management
 - Von Korff et al. Ann Int Med 1997; 127:1097-1102

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Evidence-based Principle #1 *[Chronic Care Model]*

- Multi-faceted interventions are stronger than single-component interventions

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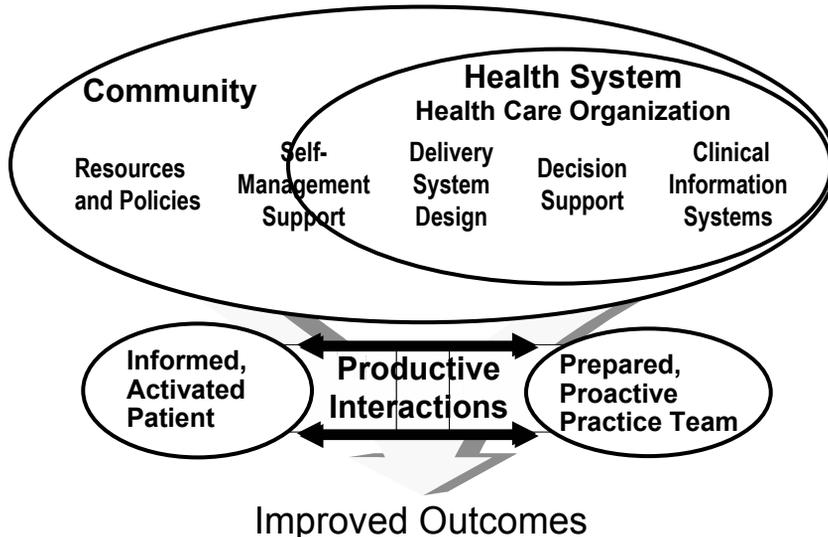
Evidence-based Principle #1

References

- Renders CM, Valk GD, Griffen S, Wagner EH, Eijk JThM van, Assendelft WJJ.
- Interventions to improve the management of diabetes mellitus in primary care, outpatient and community settings (Cochrane Review)
Hulscher MEJL, Wenisng M, van der Weijden T, Grol R.
- Interventions to implement prevention in primary care. (Cochrane Review)
Haynes RB, McDonald H, Garg AX, Mantague P.
- Interventions for helping patients to follow prescriptions for medications. (Cochrane Review)
- Silagy G, Stead LF. Physician advice for smoking cessation. (Cochrane Review)
- Stone EG, Morton SC, Hulscher ME, et al. Interventions that increase use of adult immunization and cancer screening services: a meta-analysis. *Ann Intern Med* 2002;136:641-51.
- Gilbody S, Whitty P, Grimshaw J, Thomas R. Educational and organizational interventions to improve the management of depression in primary care: a systematic review. *JAMA* 2003;289:3145-3151.

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The Chronic Care Model: A Systems Approach to Improving Care



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Evidence-based Principles Organized by the Five As:

Assess
Advise
Agree
Assist
& Arrange

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Evidence-based Principles #2 *[Assess]*

Assessing clinical severity, functional status, patient goals and preferences and self-management behaviors is integral to self-management support

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Evidence-based Principle #3 ***[Advise]***

Effective interventions provide information that guides self-management, but information alone generally shows negligible effects on key outcomes

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Evidence-based Principle #3 **References**

- Wolf FM, Guevara JP, Grum CM, Clark NM, Cates CJ. Educational interventions for asthma in children. (Cochrane Review)
- Valk GD, Kriegsman DMW, Assendelft WJJ. Patient education for preventing diabetic foot ulceration. (Cochrane Review)
- Lancaster T & Stead LF. Self-help interventions for smoking cessation. (Cochrane Review)

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Evidence-based Principle #4 ***[Advise]***

Clinicians more effectively support self-management when they provide evidence-based information with a non-judgmental approach

– References

- Dunn C, Deroo L, Rivara FP. The use of brief interventions adapted from motivational interviewing across behavioral domains: a systematic review. *Addiction* 2001;96:1725-1742.

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Evidence-based Principle #5 ***[Agree]***

Interventions that define priorities, goals and plans for achieving goals improve key outcomes

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Evidence-based Principle #5 References

- Gibson PG, Powell H, Coughlan J, Wilson AJ, Abramson M, Haywood P, Bauman A, Hensley MJ, Walters EH. Self-management education and regular practitioner review for adults with asthma. *Cochrane Database Syst Rev.* 2003;(1):CD001117. (Cochrane Review)
- Norris SL, Lau J, Smith SJ, Schmid CH, Engelgau MM. Self-management education for adults with Type 2 diabetes: a meta-analysis of the effect on glycemic control. *Diabetes Care* 2002;25:1159-1171.

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Evidence-based Principle #5 References, cont.

- O'Connor AM, Stacey D, Entwistle V, Llewellyn-Thomas H, Rovner D, Holmes-Rovner M, Tait V, Tetroe J, Fiset V, Barry M, Jones J. Decision aids for people facing treatment or screening decisions. *Cochrane Database Syst Rev.* 2003;(2):CD001431. (Cochrane Review)
- Toelle BG, Ram FSF. Written, individualized management plans for asthma in children and adults. *Cochrane Database Syst Rev.* 2004;2:CD002171 . (Cochrane Review)
- Hill-Briggs F. Problem solving in diabetes self-management: a model of chronic illness self-management behavior. *Ann Behav Med* 2003;25:192-193.

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Evidence-based Principle #6 ***[Assist & Arrange]***

Diverse professionals and laypersons can effectively deliver self-management support if they have clearly defined tasks and roles and are trained in evidence-based interventions

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Evidence-based Principle #6 **References**

- Thompson RL, Summerbell CD, Hooper L, Higgins JPT, Little PS, Talbot D, Ebrahim S. Dietary advice given by a dietician versus other health professional or self-help resources to reduce blood cholesterol. *Cochrane Database Syst Rev.* 2003;(3):CD001366. (Cochrane Review)
- Bower P. Primary care mental health workers: models of working and evidence of effectiveness. *Br J Gen Pract* 2002;52:926-933.
- Brown SA & Grimes DE. A meta-analysis of nurse practitioners and nurse midwives in primary care. *Nurs Res* 1995; 44:332-339.

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Evidence-based Principle #7 ***[Assist & Arrange]***

- Self-management support can be effectively delivered via diverse modalities including individual, group, telephone and self-instruction formats

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Evidence-based Principle #7 **References**

- Stead LF & Lancaster T. Group behavior therapy programmes for smoking cessation. (Cochrane Review)
- Stead LF, Lancaster T, Perera R. Telephone counseling for smoking cessation. (Cochrane Review)
- Lancaster T & Snead LF. Individual behavioral counseling for smoking cessation. (Cochrane Review)
- Currell R, Urquhart C, Wainwright P, Lewis R. Telemedicine versus face to face patient care: Effects on professional practice and health care outcomes. (Cochrane Review)

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Evidence-based Principle #8 ***[Assist & Arrange]***

Case management can improve self-management and patient outcomes if (and only if) it is goal-directed and guideline-based

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Evidence-based Principle #8 **References**

- Thomas L, Cullum N, McColl E, Rousseau N, Soutter J, Steen N. Guidelines in professions allied to medicine. (Cochrane review)
- Marshall M, Gray A, Lockwood A, Green R. Case management for people with severe mental disorders. (Cochrane Review)
- Loveman E, Royle P, Waugh N. Specialist nurses in diabetes mellitus. (Cochrane Review)
- Ferguson JA & Meinberger M. Case management programs in primary care. J Gen Intern Med 1998; 13:123-126.
- Von Korff M & Goldberg D. Improving outcomes in depression: The whole process needs to be enhanced. BMJ 2001;323:948-949.

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Evidence-based Principle #9 ***[Assist & Arrange]***

Enhancing patient confidence and self-efficacy regarding key chronic-illness management tasks improves the process and outcomes of care

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Evidence-based Principle #9 **References**

- Burckhardt CS & Bjelle A. Education programmes for fibromyalgia patients: description and evaluation. *Bailleres Clin Rheumatol* 1994;8:935-955.
- Astin JA, Beckner W, Soeken K, Hochberg MC, Berman B. Psychological interventions for rheumatoid arthritis: Meta-analysis of randomized controlled trials. *Arthritis Rheum* 2002;47:291-302.

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Evidence-based Principle #10 ***[Assist & Arrange]***

Ongoing follow-up, supported by feedback and reminders to clinicians and patients, helps sustain adherence and improves patient outcomes

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Evidence-based Principle #10 **References**

- Renders CM, Valk GD, Griffen S, Wagner EH, Eijk JThM van, Assendelft WJJ. Interventions to improve the management of diabetes mellitus in primary care, outpatient and community settings (Cochrane Review)
- Ellis PM, Smith DA. Treating depression: the beyondblue guidelines for treating depression in primary care. "Not so much what you do but that you keep doing it". *Med J Aust* 2002;20:S77-83.
- McAlister FA, Lawson FM, Teo KK, Armstrong PW. A systematic review of randomized trials of disease management programs in heart failure. *Am J Med* 2001;110:378-384.

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Evidence-based Principle #10

References, cont.

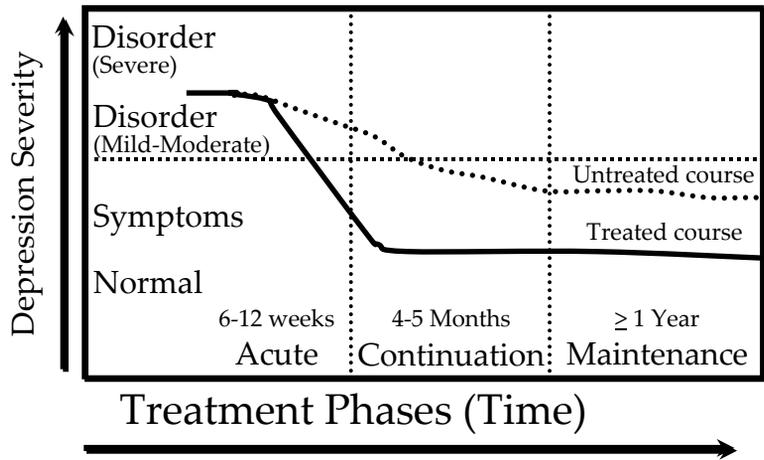
- Griffin S & Kinmonth AL. Systems for routine surveillance for people with diabetes mellitus.(Cochrane Review)
- Von Korff M & Goldberg D. Improving outcomes in depression:The whole process needs to be enhanced. BMJ 2001;323:948-949.
- Gilbody S, Whitty P, Grimshaw J, Thomas R. Educational and organizational interventions to improve the management of depression in primary care: a systematic review. JAMA 2003;289:3145-3151.

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Application of Evidence-based Self-management Support to Depression Care

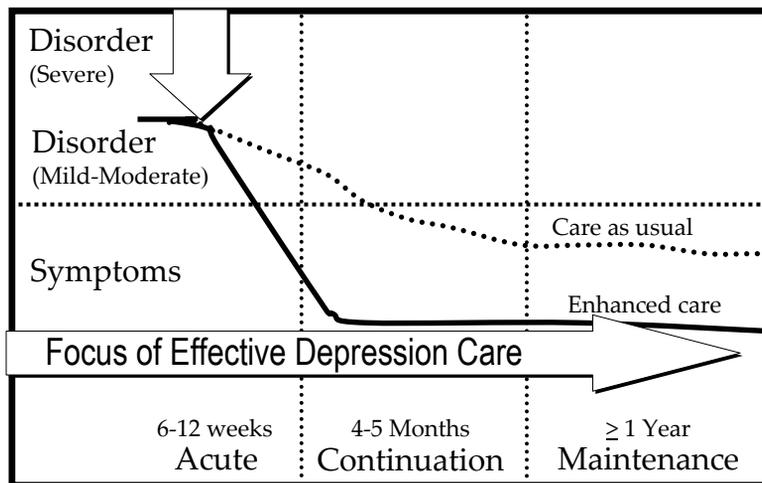
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Phases of Depression Care



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Focus of Depression Care as Usual



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Meta-analysis of 21 RCTs for Depression Care

“Strategies effective in improving patient outcome... incorporated patient education...nurse case-management and a greater degree of integration of primary and secondary care”

“Telephone medication counseling delivered by practice nurses or trained counselors was also effective.”

“Simple guideline implementation and educational strategies were generally ineffective.”

- Gilbody et al., Educational & organizational interventions to improve the management of depression in primary care: a systematic review. JAMA 2003; 289:3145-3151

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RCT Evidence: Components of Effective Depression Treatment

	Tx Guidelines	Screening	Patient Educ.	Case Management	MH Specialist	Effective?
Schulberg	+	+	+	+	++++	YES
Katon	+	-	+	+	+++	YES
Katzelnick	+	+	+	+	++	YES
Rost	+	+	+	+	+/-	YES
Hunkeler	+	-	+	+	+/-	YES
Wells	+	+	+	+	+/-	YES
Simon	+	-	+	+	+/-	YES
Simon	+	-	+	-	-	NO
Callahan	+	+	+	-	-	NO
Dowrick	+	+	-	-	-	NO

Von Korff M & Goldberg D. Improving outcomes in depression. BMJ 2001; 323:948-949.

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Systems Interventions to Improve Depression Care

Delivery System Design

- ✓ Pro-active follow-up
- ✓ Care management

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Systems Interventions to Improve Depression Care

Decision Support

- ✓ Structured questions to assess treatment response, side effects and adherence
- ✓ Medication management algorithm
- ✓ Targeted specialist consultation & advice

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Systems Interventions to Improve Depression Care

Clinical Information Systems

- ✓ Scheduled follow-up contacts
- ✓ Timeliness of medication refills tracked
- ✓ Treatment response tracked
- ✓ Reminders and prompts

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Systems Interventions to Improve Depression Care

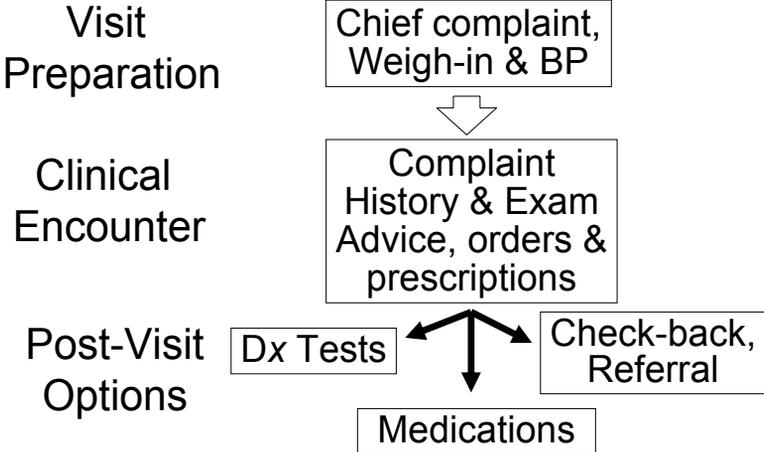
Self-Management Support

- ✓ Motivational counseling
- ✓ Educational materials
- ✓ Therapeutic optimism
- ✓ Integrated self-management support

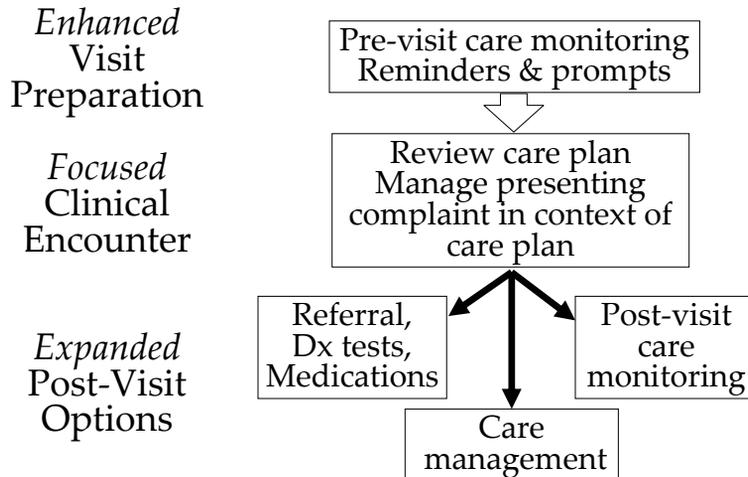
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A Possible Strategy for Implementing Evidence-based Depression Care in Routine Primary Care

Process Flow in Care as Usual



Enhanced Process Flow



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The Future: Practical, Multi-faceted Systems Designed to Support Patients

Can routine health care incorporate...

- ✓ Active follow-up?
- ✓ Targeted care management?
- ✓ Timely decision support?
- ✓ Integrated self-management support?

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Epidemiologic Perspectives



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- Ed Boyko, MD, MPH, Seattle ERIC Director, interviews James Logerfo, MD, MPH, Director of the Public Health Prevention Center and Professor of Medicine, University of Washington, about his research involving patient self-care management.

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