Minimally Disruptive Medicine
a respectful approach to asthma care delivery

Victor M. Montori, MD, MSc
Professor of Medicine
KER UNIT
Center for Clinical and Translational Sciences
Mayo Clinic

@montori.victor@mayo.edu
@vmontori
Accreditation

The content of this webinar presentation has been approved for RN, RT, and CCM CE credit. Not all topics qualify for AE-C re-certification. See [www.naecb.org](http://www.naecb.org) for more details.

Measures have been taken by the Utah Department of Health, Bureau of Health Promotion, to ensure there is no conflict of interest in this activity.
Disclosure Statement

I do **not** have financial relationships to disclose.
Multiple chronic conditions
On dialysis
Lives with son and his family
Does not speak English
Bland diet
Contact by phone
What is best for me?
What is best for my family?

Is our care the answer?
Violence
Pollution
Chronic stress
Multi morbidity
Loneliness
Obesity
Poverty
Alienation

Age, sex, genes

General socioeconomic, cultural and environmental conditions
Living and working conditions
Social and community influences
Individual lifestyle factors
Comorbidities are common

Dumbreck et al. BMJ 2015;350:h949
Do the other conditions and their management impact…

Baseline risk

Neuropathy
  +
Antihypertensive
  +
Anticonvulsant

Diabetes
  +
HTN
  +
Hyperlipidemia

Antidepressant + antihyperglycemic

Responsiveness

Vulnerability
Expected interactions between guidelines

Drug-disease interactions rare, but for chronic kidney disease.

Drug-drug interactions are common, and ~20% serious

Dumbreck et al. BMJ 2015;350:h949
Evidence-based guidelines
Care pathways
Quality measures
Specialist care are disease focused and context blind
Increasingly complex regimens
Limited to no prioritization
Poor care coordination
Overwhelmed patients and families
The work of being a patient

Sense-making work

Organizing work and enrolling others

Doing the work

Reflection, monitoring, appraisal

Gallacher et al. Annals Fam Med 2012
New work

Prepare for the consultation
Watch educational video
Bring questions; be ready for new ones
Record and review the visit
Review the medical record
Communicate via portal and transmit data
Self-measure, self-monitor, self-manage
Manage appointments, prescriptions, bills
Keep family and important others informed
Take care of significant other
Advocate for self and others
Clinicians ask for too much, the work is too hard, and it gets delayed or not get done.

More common in low SES and sicker patients who were more likely to delegate.

Nationally representative survey of 2040 >65 Americans
Wolff JL, Boyd CM. JGIM 2015 30: 1497-504
Imbalance workload + capacity
Workload-capacity imbalance?

↑ Workload
   Life
   Treatment burden

↓ Capacity
   Sick
   Personal
   Functional
   Socio-economical
Statin Choice

Current Risk
Select Risk Calculator

Do you have a history of events such as prior heart attack or stroke, acute coronary syndromes, history of angioplasty or stents, etc?

- No

These figures are used to calculate my risk of having a heart attack in the next 10 years:

- Age: 50
- Gender: M
- Population Group: White or other
- Smoker: No
- Diabetes: No
- Treated SBP: No
- Conv. Unit: SI Unit
- Systolic Blood Pressure: 140 mmHg
- HDL Cholesterol: 40 mg/dL
- Total Cholesterol: 200 mg/dL

Select Current Intervention:
- Statins: No
- Aspirin: No

Future Risk
Risk for 100 people like you who do not take medication for heart problems

- Standard Dose Statins

Over 10 years
- 6 people will have a heart attack
- 92 people will have no heart attack
- 2 people will be saved from a heart attack by taking medicine
What aspect of your next diabetes medicine would you like to discuss first?

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Blood Sugar (Hypoglycemia)</td>
<td></td>
</tr>
<tr>
<td>Blood Sugar (A1c Reduction)</td>
<td></td>
</tr>
<tr>
<td>Daily Routine</td>
<td></td>
</tr>
<tr>
<td>Daily Sugar Testing (Monitoring)</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td></td>
</tr>
</tbody>
</table>

These figures are estimates and are for comparative reference only. Actual out-of-pocket costs vary over time, by pharmacy, insurance plan coverage, preparation and dosage. Under some plans name brands may be comparable in cost to generics.

**Metformin** *(Generic available)*

<table>
<thead>
<tr>
<th>Amount</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.10 per day</td>
<td>$10 / 3 months</td>
</tr>
</tbody>
</table>

**Insulin** *(No generic available – price varies by dose)*

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lantus Vial</td>
<td>per 100 units: $10</td>
<td></td>
</tr>
<tr>
<td>Lantus Pen</td>
<td>per 100 units: $43</td>
<td></td>
</tr>
<tr>
<td>NPH Vial</td>
<td>per 100 units: $6</td>
<td></td>
</tr>
<tr>
<td>NPH Pen</td>
<td>per 100 units: $30</td>
<td></td>
</tr>
<tr>
<td>Short acting analog insulin Vial</td>
<td>per 100 units: $10</td>
<td></td>
</tr>
<tr>
<td>Short acting analog insulin Pen</td>
<td>per 100 units: $43</td>
<td></td>
</tr>
</tbody>
</table>

**Pioglitazone** *(Generic available)*

<table>
<thead>
<tr>
<th>Amount</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10.00 per day</td>
<td>$900 / 3 months</td>
</tr>
</tbody>
</table>

**Liraglutide/Exenatide** *(No generic available)*

<table>
<thead>
<tr>
<th>Amount</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$11.00 per day</td>
<td>$1,000 / 3 months</td>
</tr>
</tbody>
</table>

**Sulfonylureas** *(Glibizide, Glimepiride, Glyburide)*

<table>
<thead>
<tr>
<th>Amount</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.10 per day</td>
<td>$10 / 3 months</td>
</tr>
</tbody>
</table>
LeBlanc A et al. JAMA Int Med 2015
Summary of Mayo experience

Age: 40-92 (avg 65)
Primary care, ED, hospital, specialty care
74-90% clinicians want to use tools again
Adds ~3 minutes to consultation
58% fidelity without training
Effects on SDM are similar in vulnerable populations
Variable effect on clinical outcomes, cost

Wyatt et al. Implement Sci 2014; 9: 26
Coylewright et al CCQO 2014, 7: 360-7
Accurate Knowledge: 60%

Estimated risk: 50%

Received information:
- Right amount: 79%
- Very clear: 39%
- Very helpful: 40%

Engagement of patients: 35%

Want to receive information in the same manner: 53%
### Workload-capacity imbalance?

<table>
<thead>
<tr>
<th>Treatment burden</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritize (SDM)</td>
<td>Coaching</td>
</tr>
<tr>
<td>De-prescribe</td>
<td>Self management training</td>
</tr>
<tr>
<td></td>
<td>Palliative care</td>
</tr>
<tr>
<td></td>
<td>Mental health</td>
</tr>
<tr>
<td></td>
<td>Physical and occupational therapy</td>
</tr>
<tr>
<td></td>
<td>Financial and resource security services</td>
</tr>
<tr>
<td></td>
<td>Community and governmental resources</td>
</tr>
</tbody>
</table>
Are these areas of your life a source of satisfaction, burden, or both?

- My Family and Friends
- My Work
- My House & Neighborhood
- My Finances
- Free time, Relaxation, Fun
- Faith or Personal Meaning
- Being Active
- My Rest and Comfort
- My Emotional Life
- My Senses and Memory
- Eating Well

What are the things that your doctors or clinic have asked you to do to care for your health?

For example:
- Come in for appointments
- Take aspirin

Do you feel that they are a help, a burden, or both?
25 yrs and 42 RCTs
30-day readmission
Interventions supporting capacity
30% more effective

Leppin A et al. JAMA Intern Med 2014

Shippee N et al JCE 2012
WORKLOAD

CAPACITY
Accountability

Imbalance of workload : capacity
Burden of illness
Burden of treatment

Life

Workload
Capacity
Scarcity

Burden of treatment
Burden of illness

Access, use, self-care

Satisfaction with and ease of access, continuity, transitions

Physical and mental health
Role function
Disease control

Outcomes

Adapted from NQF: MCC Measurement Framework 2012
What is best for me?
What is best for my family?

Is our care the answer?
Minimally Disruptive Medicine Symposium
Sept. 27-29, 2016
Mayo Clinic
Rochester, Minnesota

minimallydisruptivemedicine.org

QUESTIONS?
montori.victor@mayo.edu
@vmontori