HIT for Performance Measurement and Performance Improvement: Happening Now

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Diabetes Improvement Group – Intervention Trial (DIG-IT*)

- EMR-facilitated real-time clinical decision support and performance measurement
  - Design
  - Patient assignment
  - Clinical decision support
  - Registry, performance feedback
  - Some results to date (ongoing)

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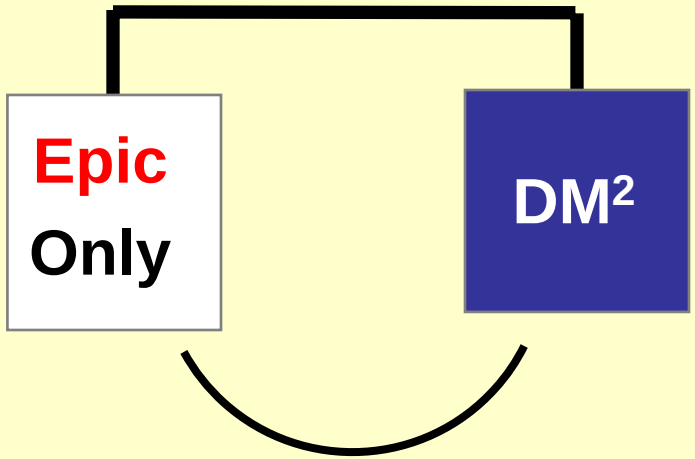
Agency for Healthcare Research and Quality

Design: Random Assignment of Practices to Disease Management for Diabetes Mellitus (DM^2)



2 Clusters
10 Practices
~65 PCPs
~8000 Patients

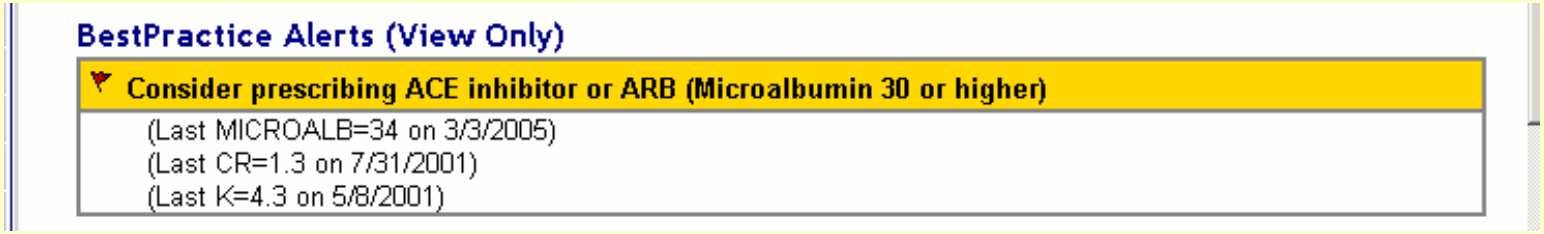
EMR-Based Assignment of Patients

- Patient Eligibility:
  - Diagnosis: ICD-9 codes or antidiabetic meds
- PCP Links/Attribution:
  - Two or more eligible patient visits with PCP
  - Initialization of Lists: PCP can report:
    - "Not my patient" or "Not Diabetic"
    - Conflicts adjudicated (<.1%)
  - Weekly Updating:
    - New patients
    - Transfers within or across practices

Real-time Clinical Decision Support

- Alerts and Linked Order Sets
- Patient and Physician Education
- Patient Lists/Registry, Current Status
- Practice panel performance feedback

Encounter-based Alerts

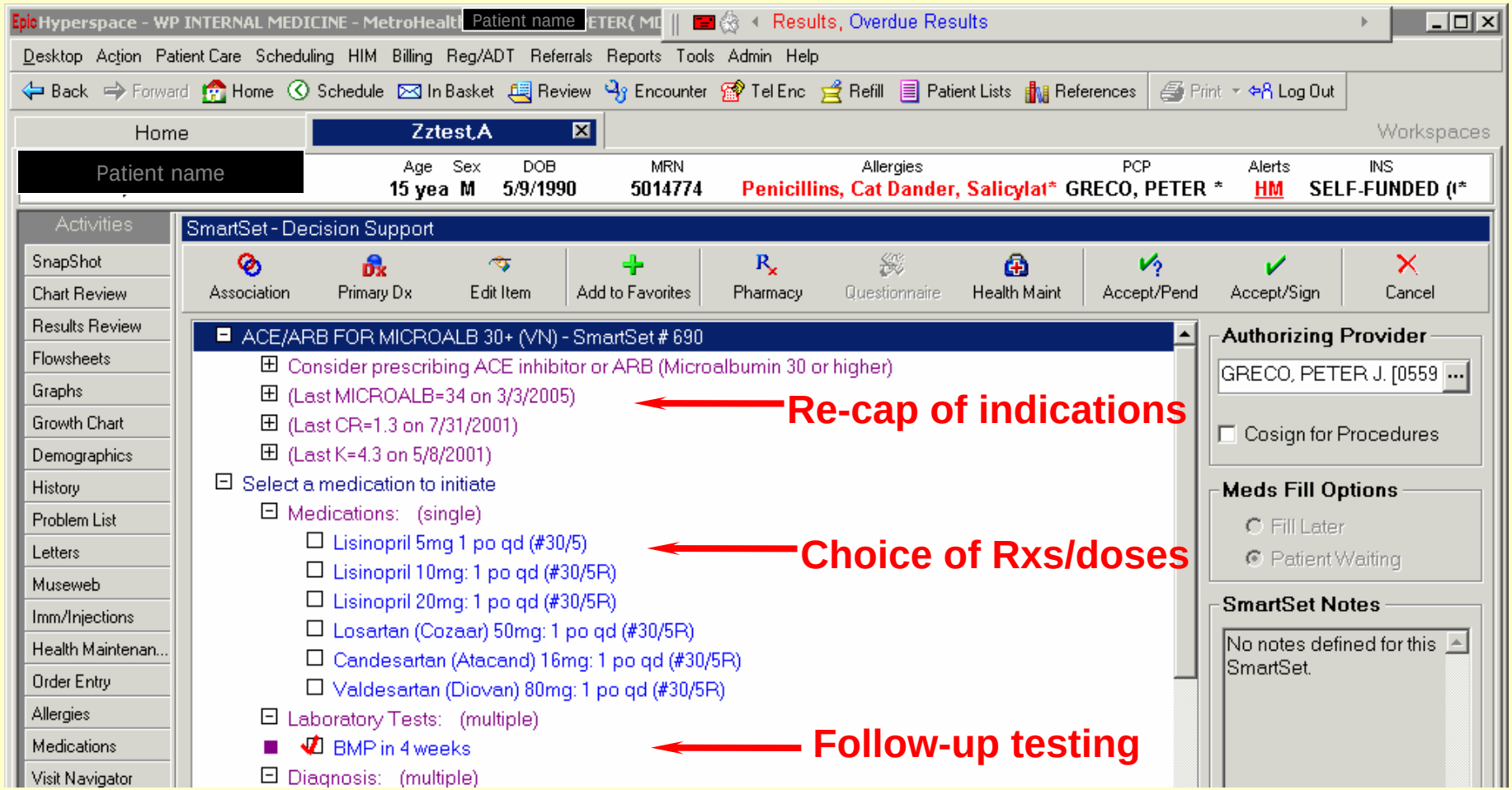


{Links to Automated Order Set}

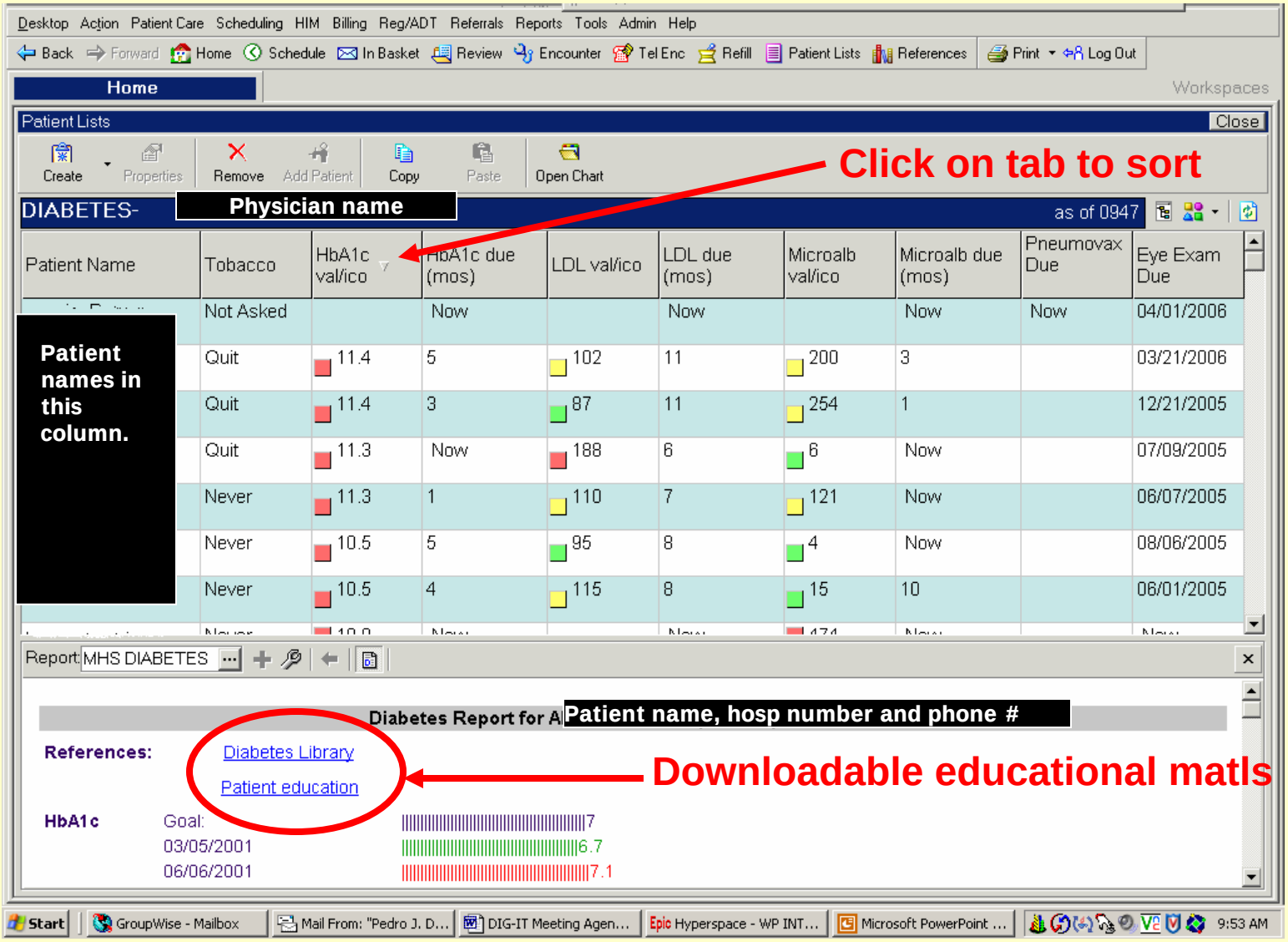
What do we know about this patient?

- **She has diabetes and is visiting her PCP**
- **Her kidneys are leaking protein.**
- **She is not on an ACE inhibitor or ARB and has no documented allergies to them.**
- **She has no other contraindications (K, Cr)**
- **There are several alternative drugs/doses**

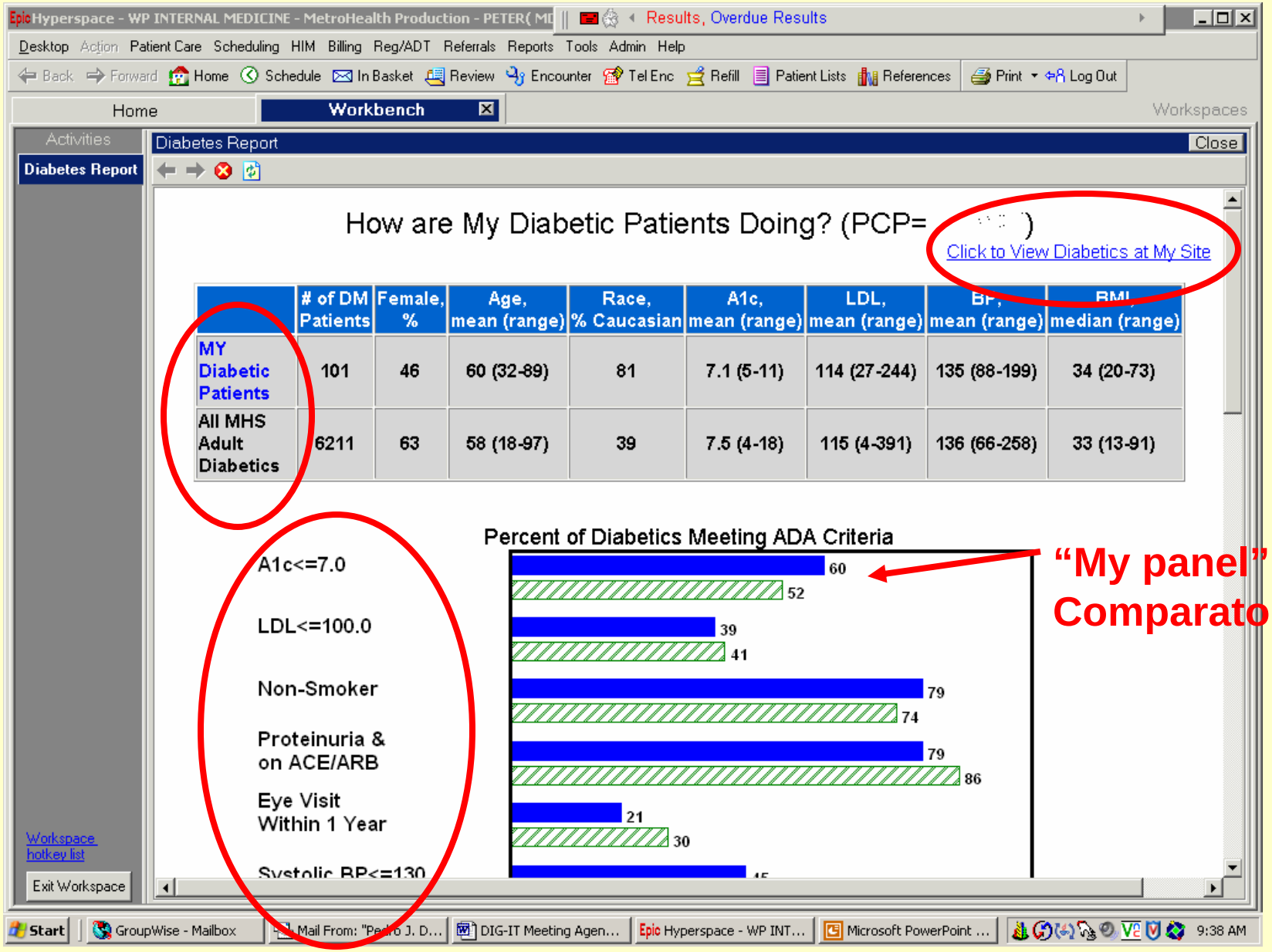
SmartSet Linked to ACE/ARB Alert



Updated PCP Patient List, Ed Materials

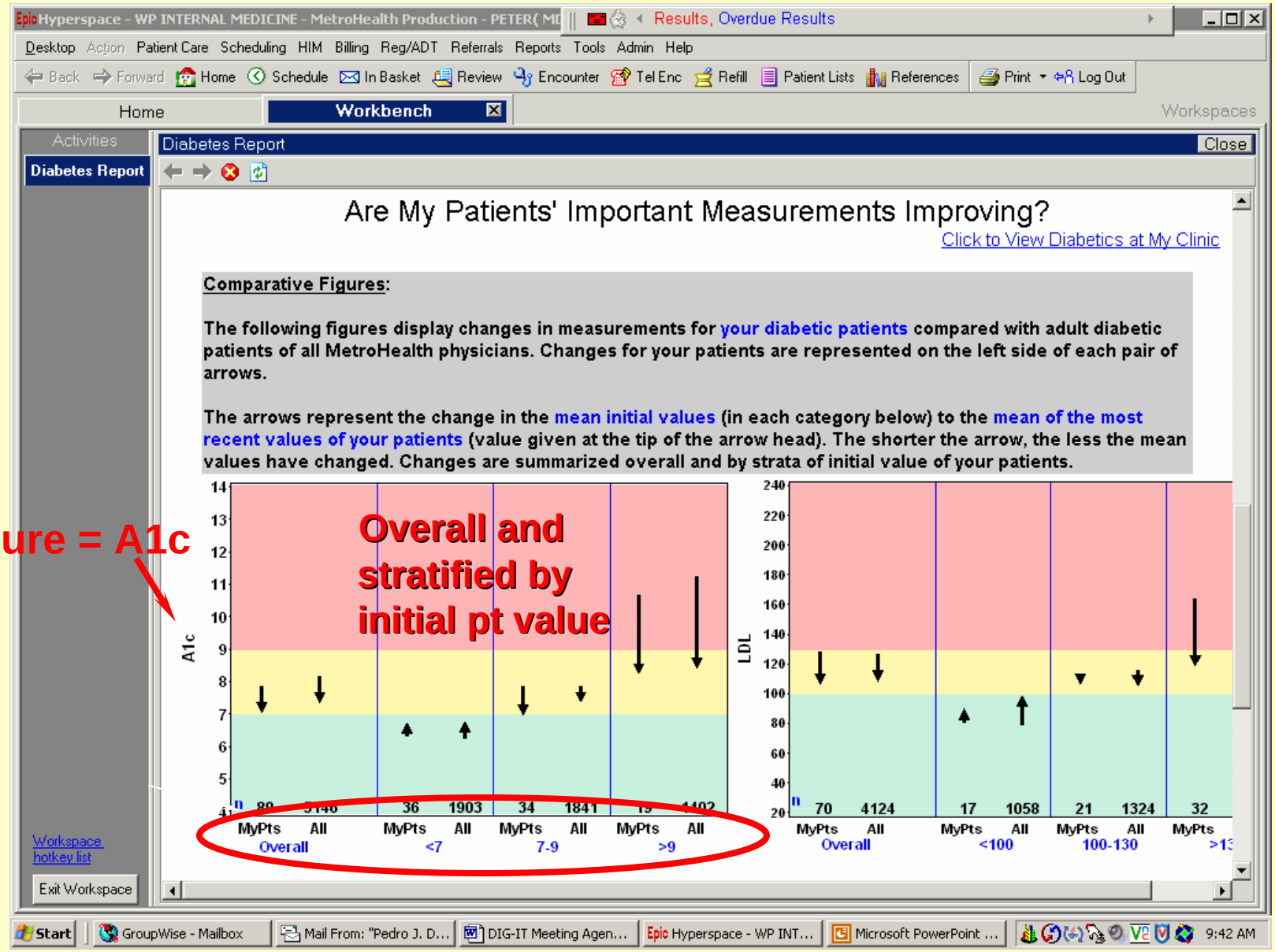


Comparative Feedback on Practice Panel



"My panel" vs. Comparator

Comparative Improvements in Measures



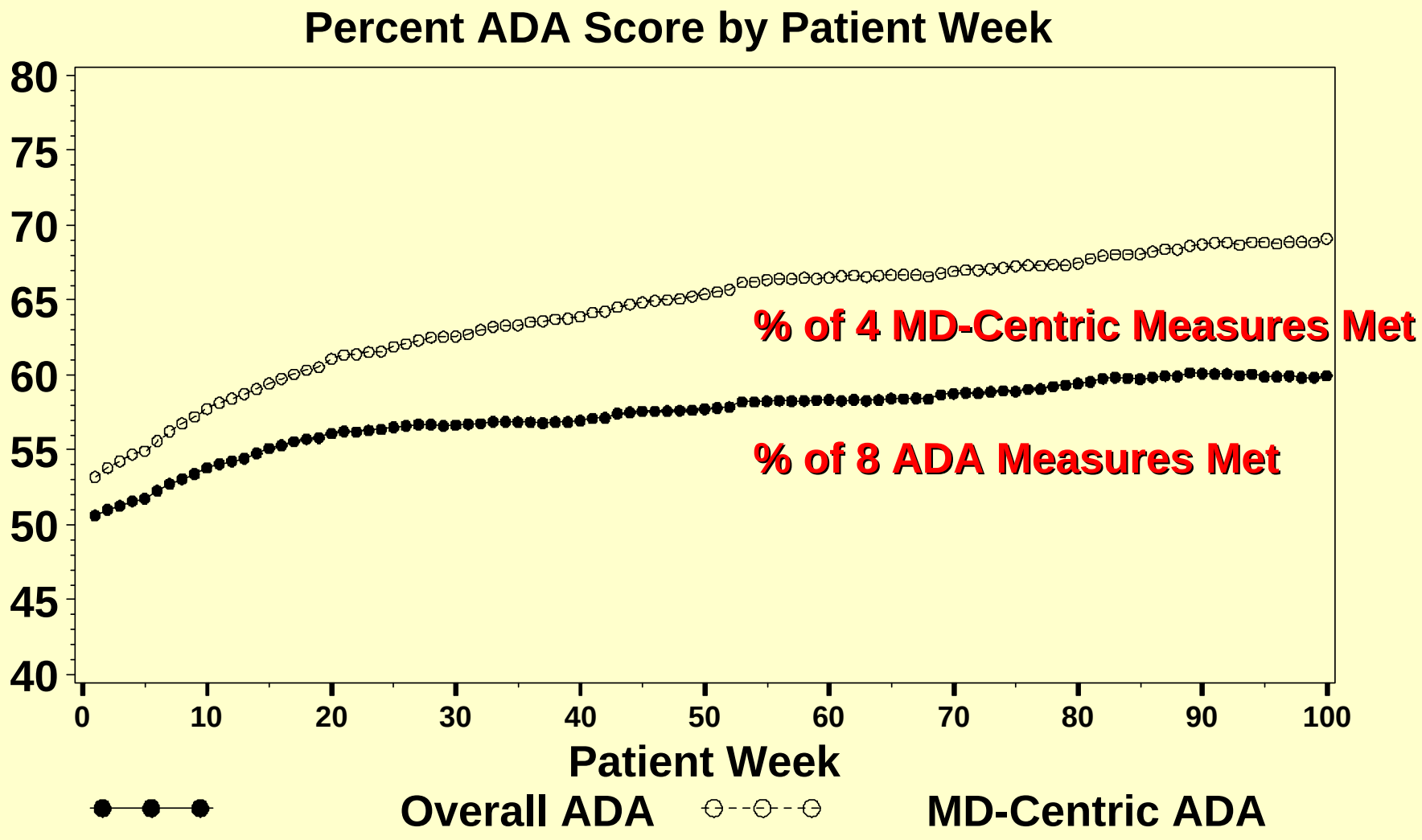
Clinical Measure of Improvement
"ADA Scores" Measured Every Week

Clinical Outcome: Change in Scores	
Ace/ARB*	1
Pnvx*	1
Eye Exam*	1
LDL<100*	1
A1C<7%	1
BMI<30	1
Non-Smker	1
SBP<130	1

0-8 points

* "MD-centric measures"

Changes in ADA Scores for Experimental Group Patients (n=5288)



HIT for Performance Measurement: Some Summary Thoughts About P4P

- Are Our Data Complete?
  - NO
- Are There Biases in Our Data?
  - Probably , yes
  - Mostly Under-ascertainment
- Absent full HIE, are EMR-based system-level data Fair for P4P?
  - For system-level P4P, probably yes
  - For cross-system comparisons, it depends

HIT for Performance Measurement: Some Summary Comments

- Using EMR-centered data, we can:
  - Identify and link patients satisfactorily
  - Measure performance at a granular level pretty well
  - Measure performance on all eligible patients, regardless of insurance status
  - Monitor and provide meaningful feedback in a timely way
  - Measure improvement in process and outcomes