# Clinical & Prevention Urinary Incontinence Trials: Is there a Sensible Path Forward?

Ananias C. Diokno, M.D.

Professor of Urology, Oakland University William Beaumont School of Medicine, Rochester, MI

Ret. EVP-CMO, Beaumont Health System, Royal Oak, MI



# **DISCLOSURES**

 Current Funding: NIH-NIA & Beaumont Health Foundation (Philanthropy)

Other Financial Relationship: None

Conflict Of Interest: None



# CLINICAL & PREVENTION UI TRIALS IS THERE A SENSIBLE PATH FORWARD?

- What do we want to accomplish?
  - Our GOALS
- What are the barriers in achieving our goals?
  - BARRIERS TO BREAK
- How can we achieve our goals?
  - Our STRATEGY



# **GOALS FOR GERIATRIC UI RESEARCH**

- Provide Means To Drastically Reduce The Incidence Of UI & Cure/Control UI Among Sufferers – Improve QOL
- Science of UI Need
  - Improve knowledge in basic science dealing with the LUT
  - An accurate assessment of the incidence and remission rates
  - Reliable information regarding risk factors
  - Effective standardized clinical and preventive intervention for UI



# **GOALS FOR GERIATRIC UI RESEARCH**

#### PROVIDE MEANS TO SUPPORT SCHOLARS OF UI RESEARCH

- Unification of the various disciplines and institutions working in Geriatric UI research
- Soliciting and encouraging new disciplines for new ideas and solutions
  - Focus the efforts by defining common goals
  - Establish a strategy to raise adequate funds to support Geriatric UI research
  - Establish a clearing house for collection & dissemination of accurate validated information for public consumption



# MAJOR ISSUES (BARRIERS) MOVING FORWARD

#### Lack of Focus/Coherence

Wide ranging publications in this topic - No consensus

### Duplication of Efforts

 Too many cross-sectional survey & duplicative intervention studies

### Gaps of Basic Knowledge

 Limited longitudinal studies (incidence, remission, risk factors, etc.) and under-utilization of voluminous data

# Disparate Groups and Ideas

Duplication of efforts with conflicting results



# MAJOR ISSUES (BARRIERS) MOVING FORWARD

- Shortage of Funds and Scholars
- Lack of Authoritative Clearing House for Collection & Dissemination of Information
  - Professional organizations, medical centers, governmental agencies, private enterprise, etc.
- Focus/Efforts/Ideas
  - Basic Science
    - Molecular, biochemical, pharmacologic, cellular, neuronal, etc.
  - Clinical
    - Epidemiology, diagnostic, therapy intervention



# Barriers con't.

#### Focus/Efforts/Ideas

- Prevention
  - Primary, secondary, both and with what

### Participants (Subjects/Patients) & Care Settings

- Best model for basic science research
- Gender differences and focus
- Settings: Community, Assisted living, Nursing homes, In-patients,
   Palliative/Hospice care

### BARRIERS con't.

#### TECHNOLOGY: MINING THE DATA BASES

- Utilization of electronic technology in data mining & clinical application
- Mining the MESA data base to identify risk factors for geriatric UI
  - NIH Funded Grant 2011-2015\*
  - Established "continence index: A new questionnaire to predict UI in elderly women in the community

Diokno AC, Ogunyemi T, Siadat MR, Arslanturk S, Killinger KA. Continence Index. A new screening questionnaire to predict the probability of future incontinence in older women in the community. Int Urol Nephrol. 2015 Jul;47(7):1091-97



# OUTCOMES OF MINING THE MESA DATA BASE EIGHT RISK FACTORS FOR GERIATRIC UI

- 1. BMI >24
- 2. Sneeze often/sometimes
- 3. Post-partum UI
- 4. Trouble getting to toilet
- 5. Wetting | soiling 1/wk.+
- 6. Can't shut off stream
- 7. Memory problems
- 8. Possible future UI

COMBINATION FACTORS	PROBABILITY UI (LL OF CI)
1 Factor	50-58%
2 factors	56-69%
3 factors	66-78%
4 factors	74-87%
5 factors	85-89%
6 factors	87-92%
7 factors	93-95%
8 factors	96%



# **BARRIERS**

# Funding Issues

Governmental Agencies: NIH, DOD, CDC etc., Philanthropy,
 Private Enterprise: Pharma, insurance companies, etc.

# Scientific Expertise

- Centers of Excellence
- Specialists & Specialties multiple disciplines
- Institutional support



# STRATEGY TO ACCOMPLISH GOALS

- Need to establish a consensus among stake holders
- Convene a consensus conference
  - Under the auspices of a government agency & other organizations
  - Open to multiple participants (institution & disciplines)
  - Establish known facts & current status
  - Identify and prioritize gaps of knowledge
  - Establish a focused comprehensive research agenda
  - Establish a clearing house to disseminate information



# CONCLUSION

- Knowledge on Geriatric UI has advanced
- Significant knowledge gaps still exist
- Prevalence of UI is still high
- Major barriers include issues with content, infrastructure, personnel and funding
- Need for a consensus to develop a strategy to
  - Improve dissemination of information
  - Identify and prioritize solving gaps of knowledge
  - Establish a focused comprehensive research agenda



# Thank you!

