Building A Medical Neighborhood Model For Sleep Care:
Steps to Improving Quality

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STATEMENT OF PROBLEM

- Primary care delivery has shifted in the past decade toward a patient-centered medical home (PCMH) delivery model, creating a team-based model of care.¹
- The medical neighborhood model builds on the PCMH model by incorporating specialists and ancillary services into the patient-based care model.²
- The medical neighborhood model aims to improve communication between PCPs and specialists by developing a collaborative care agreement focusing on three levels of interactions: (1) a pre-consult exchange, (2) the actual consultation and (3) a co-management plan.³,⁴
- Currently, care of patients with sleep disorders in the primary care settings is hindered by the administrative burden of diagnostic testing, limited training of primary care providers in sleep medicine, fragmentation of medical equipment suppliers, and lack of access to behavioral treatments of insomnia.⁵,⁶
- Improving quality of sleep care at a population level requires tailored interventions designed by a multidisciplinary team (i.e., primary care and sleep medicine).

AIM

- Our multidisciplinary team is developing and implementing a sleep neighborhood model for Health Care Associates (HCA) through two novel patient pathways (i.e., obstructive sleep apnea and insomnia) as well as assessing its effect on quality of sleep care. Through a cluster randomized trial design we will quantify the impact of our model of care on:
  o Processes of care: compare patient and provider satisfaction, and time to diagnostic testing (sleep study)
  o Quality of care: CPAP adherence, and hypnotic prescription rates
  o Patient reported outcomes: sleepiness, insomnia severity, sleep disruption, and sleep related impairment

INTERVENTIONS

Currenty Here

- Develop collaborative care agreement through an advisory panel
- Define roles of key stakeholders in care pathways for insomnia and sleep apnea
- Consists of:
  o Physicians and Administrators from HCA and the sleep clinic
  o Representative from Stoneman Center
  o HCA social worker
  o Representative from the sleep lab
- Develop patient provider survey

- Sent out Provider and Patient satisfaction surveys
- Separate focus groups to provide feedback on proposed pathways
- HCA providers
- Sleep providers
- Needs assessment

- Implement initial pilot to test pathways
- Initial assessments conducted at 3 months
- Second set of focus groups to identify areas in need of further improvement

- Randomize 10 HCA medical teams in a 1:1 fashion to either the sleep co-management model or current standard of care
- After refinements are made, assessments of the medical neighborhood model will be conducted
- Repeat provider and patient surveys
- Evaluate the 2 main aims using various tracking methods and assessment tools
- Exploratory analyses of whether improved sleep care improved control for three co-morbid diseases
  o Hypertension, diabetes, and depression
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The pilot for the pathway for sleep studies and treatment of obstructive sleep apnea started with four HCA teams one month ago and thus far, 12 studies have been ordered with the new process. For insomnia, in addition to the pathway for treatment; a patient educational brochure on helpful sleep habits and resources for treating insomnia has been developed; an identified clinical social worker has received advanced training in behavioral treatment of insomnia; and medication guidelines have been drafted. We plan to start pilot next month.

**REFERENCES**