Société Alzheimer Society

Title of Study: CANARY (Clinical dAta, NAtural language pRocessing, and eYe tracking for dementia risk stratification)

Principal Investigator: Thalia Field
Location: British Columbia

Study Description:
1. The primary aim of CANARY is to develop a pragmatic, multimodal real-time predictive digital biomarker to identify individuals with pre-clinical Alzheimer's Disease (AD) or very early-stage mild cognitive impairment (MCI). A secondary aim is to build a well-phenotyped corpus of participant speech and eye-tracking samples with associated clinical data, similar to the DementiaBank corpus of participant speech samples, or the ADNI corpus of participant diagnostic images.

2. The participant's role is to participate in a speech and eye-tracking assessment. This requires the participant to look at a computer screen, and complete three short speaking tasks. During this, the participant's gaze will be recorded with a non-invasive, infrared eye-tracking device, and the participant will also be audio and video recorded. The participant will also be asked to complete a demographic and medical history questionnaire, and a brief (5-10 minute) cognitive test (MoCA). This process takes roughly 30-45 minutes in total, and is completed at UBC Hospital. Participants are invited to complete optional follow-up every 6 months for 2.5 years. At follow-up, the aforementioned tasks are repeated again.

3. Participation requires 30-45 minutes total. If all optional follow-ups are completed, total participation requires 150-225 minutes.

4. The information gathered will be used only by members of the research term. The gathered information will be used by UBC computer scientists to train a machine learning algorithm.

Eligibility: Who Can Participate?

Patients
1. 50 years or older
2. Clinical diagnosis of Alzheimer's Disease, mild cognitive impairment (MMSE score 19-25), or subjective memory complaints with diagnosis of cognitively normal following clinical consultation
3. Fluent in English
4. Ability to provide informed consent
5. Patient or is able to carry on a spontaneous conversation (dementia is not so advanced that they are unresponsive)
6. Able to attend study assessments

Healthy controls
1. 19 years of age or older
2. Fluent in English
3. Ability to provide informed consent
4. Able to attend study assessments, outlined below

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Exclusion Criteria
Patients
1. Severe cognitive impairment
2. Dysphasia secondary to causes other than dementia/MCI
3. Currently diagnosed with a psychiatric condition that is undergoing active psychiatric follow-up with changes in treatment occurring within the last 18 months
4. Previous brain injury or other primary neurological condition (excluding migraine)

Healthy Controls
1. Previous brain injury of other primary neurological condition (excluding migraine)
2. Currently diagnosed with a psychiatric condition that is undergoing active psychiatric follow-up with changes in treatment occurring within the last 18 months

Recruitment Start Date: 2019/04/01

Recruitment End Date: 2021/12/31

Contact Information:
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