



Cooperative Huntington Observational Research Trial

Baseline Mental Health Risks

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INTRODUCTION

- COHORT (Cooperative Huntington Observational Research Trial) is a coordinated research effort by Huntington Study Group (HSG) research centers in North America and Australia to prospectively collect data from consenting individuals who are affected by Huntington disease (HD) and who are part of an HD family.
- The systematically accrued data from annual prospective assessments will relate clinical characteristics (phenotypes) between families with genetic and environmental factors.
- The knowledge from these relationships will better inform us about the onset and progression of HD, help identify potential interventions for HD, and aid in planning research studies of experimental treatments aimed at slowing or postponing the onset of HD.
- The consented collection of biological samples will further provide research material and correlative data for scientists to identify biomarkers that parallel the development and progression of HD. Identification of biomarkers will in turn contribute to our understanding of HD and enhance the efficiency and power of disease-modifying therapeutic trials.

BACKGROUND

- COHORT is a prospective observational study enrolling research participants with manifest HD, pre-manifest HD, 50% risk for HD, and family members with no risk for HD.
- Major objectives are to provide systematic clinical assessments and associated biological samples for scientific investigation, expedite recruitment for therapeutic trials, and identify emerging clinical risks among COHORT participants.

STUDY DESIGN

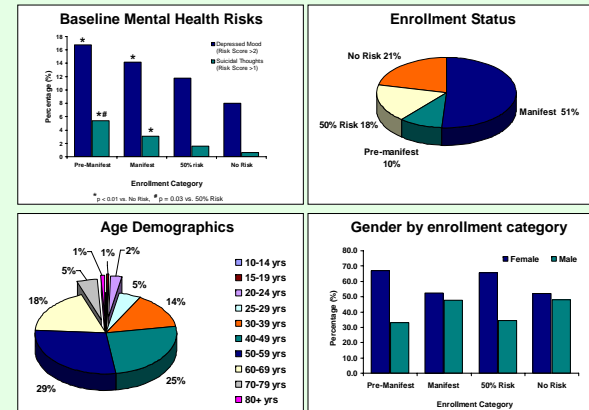
- The COHORT study was designed to assemble a large descriptive research database for HD in order to study the natural history and progression of HD using systematic phenotypic description and correlations of genotype to phenotype.
- The biological specimens repository will provide qualified scientists with the material and correlative data to identify useful biomarkers for HD.
- Wherein some longitudinal studies determine inclusion based upon geography or exposure, COHORT will determine inclusion based upon the inheritance of the HD gene.
- The European Huntington's Disease Network (EHDN) has developed a similar study called REGISTRY.

RESULTS

Table: Baseline Mental Health Risks

Category	Depressed Mood (%) Risk Score > 2	Suicidal Thoughts (%) Risk Score > 1	Total (n)	Female (%)
Pre-manifest	16.8*	5.4*#	152	67.1
Manifest	14.2*	3.1*	777	52.5
50% risk	11.8	1.6	267	65.5
No Risk	8.0	0.6	327	52.0

* p < 0.01 vs. No Risk, # p = 0.03 vs. 50% Risk



METHODS

- We analyzed baseline demographic and clinical data for the four participant groups (n=1523) as of September 16, 2008 (Table: Baseline Mental Health Risks).
- We assessed mental health risks by examining Unified Huntington Disease Rating Scale ratings for the frequency and severity of depressed mood and suicidal thoughts and compared subpopulations with elevated "risk" scores (>2 on depressed mood or >1 on suicidal thoughts).

CONCLUSIONS

- Mental health risks including elevated depressed mood and suicidal thoughts are in keeping with the genetic risk of inheriting the HD gene.
- The predominance of women in the pre-manifest and 50% risk subpopulations compared with manifest HD and family members with no risk for HD is consistent with the gender disproportion observed in the PREDICT and PHAROS observational studies.

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