Wilson disease clinical trials

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Disclosures

- Alexion- Advisory Board and studies
- Univar- Advisory Board and studies
- Orphalan Advisory Board and studies
- EASL Wilsons Disease Guidelines Delphi Panel
- WDA Advisory Board
- NIHR, MRC, UKRI
- SMEF Trustee

Active trials – recruitment complete

- Efficacy and Safety of ALXN1840 (Administered for 48 Weeks Versus Standard of Care in Participants With Wilson Disease). (Phase3)
  - optional 60-month Extension Period.

- Copper and Molybdenum Balance in Participants With Wilson Disease Treated With ALXN1840. (Phase 2)
  - This exploratory study will investigate the effects of ALXN1840 on copper balance in participants with Wilson disease (WD).

- Copper Concentration & Histopathologic Changes in Liver Biopsy in Participants With Wilson Disease Treated With ALXN1840. (Phase 2)
  - Main objectives: evaluate the change in liver copper (Cu) concentration following 48 weeks of ALXN1840 in adult participants with Wilson Disease (WD) previously treated for >1 year with SOC (trientine, penicillamine, or zinc).
  - In the Treatment Period, efficacy and safety of ALXN1840 will be assessed at Week 48.

Active trials – recruitment ongoing

Natural History of Wilson Disease

- Registry/repository study
- Mechanisms to data and specimens to support the conduct of future research about Wilson disease (WD).
- Main Aim: optimal testing for diagnosis and parameters for monitoring treatment of WD
- 3 aims

1. Study the natural history of a carefully characterised cohort of WD patients followed longitudinally at Centres of Excellence for WD in USA, UK, Europe.
2. Evaluate parameters for diagnosis / treatment monitoring for patients on chelation therapy and zinc treatment for their WD. Data from aim 1 will be used for analysing the components of the diagnostic scores for patients.
3. Determine whether a composite index *(biomarker)* can be used as surrogate marker for treatment monitoring for current patients on therapy that can be used for future patient treatment trials.

International Wilson's Disease Patient Registry *(iWilson Registry)* Longitudinal, observational, non-interventional, standard of care Registry

- *Orphalan* supported
- Data will be collected from the routinely scheduled WD clinic visits at approximately 6-12 month intervals.
- At enrolment, in addition to data from the clinic visit, retrospective data will be collected from the diagnostic evaluation and any relevant PBM and a summary of WD medication history.

Study of ALXN1840 Versus Standard of Care in Paediatric Participants With Wilson Disease

- This study is being conducted to evaluate the efficacy, safety, pharmacokinetics (PK), and pharmacodynamics of ALXN1840 versus standard of care in paediatric participants with Wilson disease.
- Participants who complete the 48 weeks of treatment in Period 1 will have the option to receive ALXN1840 for 24 weeks in Period 2 (open-label extension).
- Safety will be monitored throughout the study.

Open label, Multicentre, Prospective Study to Characterize the Pharmacokinetics and Pharmacodynamics of Cufence (Trientine Dihydrochloride) and to Investigate the Efficacy and Safety in Wilson's Disease Patients – UNITED study

- Multicentre, open-label study to investigate the effects Cufence has, the effects the body has on Cufence and the continued safety and efficacy on patients with Wilson Disease

Trials opening soon

Study of UX701 Gene Transfer for the Treatment of Wilson Disease

- Randomized, double-blind, placebo-controlled, seamless, adaptive Phase 1/2/3 clinical study of UX701 in patients with Wilson disease.

1. Stage 1 (Phase 1/2) is a nonrandomized, open-label safety and dose-finding stage designed to evaluate the safety and efficacy of 3 dose levels of UX701 to establish initial safety of UX701 and select a safe and efficacious dose for further evaluation.
2. Stage 2 (Phase 3) is a randomized, double-blind, placebo-controlled stage designed to evaluate the safety and efficacy of UX701 using the dose selected in Stage 1.
3. Stage 3 : evaluate long-term safety, efficacy, clinical benefit of UX701.

All participants will be followed for at least 5 years from the time of UX701 administration.

A Phase I/II Study of VTX-801 in Adult Patients With Wilson's Disease (GATEWAY)

- Objectives:
- Assess, for up to 5 years, safety, tolerability and pharmacological activity of a single ascending doses of VTX-801, a gene therapy, administered intravenously (IV) to adult patients with Wilson's Disease prior to and following background WD therapy withdrawal.

Planned trials

Detecting and delivering a novel ATP7B Peptide dried blood spot test for Wilson's disease in the neuropsychiatric population: The PIPELINE study

- Initial retrospective psychiatric population study – consideration of WD in the psychiatric population and 'higher risk' symptoms
- Feasibility study for the use of ATP7B DBS testing in 'high risk' population
- 1000 patients recruited from psychiatry and neurology
- 100 of both WD patients and non WD patients
- Blinded testing of DBS for further power
- Samples to be sent to Seattle for processing and testing

Characterising the Kayser- Fleischer (KF) ring and developing hand-held anterior segment optical coherence tomography (OCT) technology to assess its significance in disease – The ASCOT study

- Pilot study to assess the use of portable handheld OCT to diagnose KFR and to measure copper deposition in the retina
- Stage 1: Comparison to slit lamp examination and identification of appropriate equipment
- Stage 2: Further investigation in its use to measure copper levels in the retina of patients at different stages of treatment (Newly diagnosed, stable disease, unstable disease)
- Calculation of with dNCC (Guildford method) for comparison of retinal copper and serum copper
- Stage 3: Data from pilot scheme will be used to provide evidence for large multi centre study

Thank you

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