2020 Research Roundtable for Epilepsy

Seizures types and epilepsy syndromes: opportunity or obstacle?

Thursday, May 14, 2020

9:00 AM Breakfast and Registration *(AIA Social Gallery)*

10:00 AM Meeting Welcome and Updates *(AIA Boardroom)*
   - 10:00am – Welcome Dr. Brandy Fureman
   - 10:05am – Meeting goals and deliverables. Drs. Nathan Fountain & Jacqueline French
   - 10:15am – High level overview: Seizures vs. etiology vs. syndrome Dr. Elaine Wirrell

11:20 AM Session I: Seizures vs. Syndrome Overview
   - 11:20 AM – Anti-Seizure Medication (ASM) vs. Disease Modifying (DMEM) vs. Targeted-Mechanism Epilepsy Medication Dr. Jacqueline French
   - 11:30 AM – Discussion

11:40 AM Session II: Seizure types – standing alone and within syndromes
   - 11:45 AM Introduction to how this session is structured and the objectives
   - 11:50 AM Physiology of Seizure types Dr. Jaideep Kapur & Dr. Michael Rogawski
     Following seizure types are select examples due to time constraints, not comprehensive – Infantile spasms & epileptic spasms, Focal seizures (2 years and above), Generalized and bilateral Tonic-clonic seizures, Tonic and Atonic seizures, Infant seizures

1:00 PM LUNCH

2:00 PM Session II, Continued
   - 2:00 PM Etiology, Pathology & Pathogenesis by Seizure type Dr. Peter Crino

3:00 PM Session III: Epidemiology, clinical presentation and drug responsiveness
   Following seizure types are select examples due to time constraints, not comprehensive
   - 3:00pm – Infantile spasms & epileptic spasms Dr. Kelly Knupp
     - 3:00pm - Epidemiology and Impact on pathway/drug response
3:10pm – Discussion: is this seizure type sufficiently homogeneous to study by itself most of the time? What are circumstances when it wouldn’t be studied by itself?

3:30pm – Focal seizures, 2 years and above  
Dr. Daniel Friedman
- 3:30pm - Epidemiology and Impact on pathway/drug response
- 3:40pm – Discussion: is this seizure type sufficiently homogeneous to study by itself most of the time? What are circumstances when it wouldn’t be studied by itself? Is the same drug the best drug when you have treatment-sensitive epilepsy as when you have treatment-resistant epilepsy?

4:00pm – (Generalized and bilateral) Tonic-clonic seizures  
Dr. Robert Wechsler
- 4:00pm - Epidemiology and Impact on pathway/drug response
- 4:10 pm – Discussion: is this seizure type sufficiently homogeneous to study by itself most of the time? What are circumstances when it wouldn’t be studied by itself?

4:30pm – Tonic and Atonic seizures  
Dr. Sudha Kessler
- 4:30pm - Epidemiology and Impact on pathway/drug response
- 4:40pm – Discussion: is this seizure type sufficiently homogeneous to study by itself most of the time? What are circumstances when it wouldn’t be studied by itself?

5:00 PM  Adjourn Day 1

Friday, May 15, 2020

7:45 AM  Breakfast (AIA Social Gallery)

8:30 AM  Session III, Continued
- 8:30am – Quick refresher of Day 1

8:40am – Infant seizures  
Dr. Nathan Fountain
- 8:40am - FDA guidance update
- 8:50am - Epidemiology and Impact on pathway/drug response
- 9:00am – Discussion: is this seizure type sufficiently homogeneous to study by itself most of the time? What are circumstances when it wouldn’t be studied by itself?

9:20am – Seizure type Discussion  
Dr. Elaine Wirrell

<table>
<thead>
<tr>
<th>Seizure type</th>
<th>Incidence &amp; Prevalence</th>
<th>Where is it currently studied?</th>
<th>Where is it present but not currently studied?</th>
<th>Is the current study population representative?</th>
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<td>Infant seizures</td>
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<td>Infantile spasms &amp; epileptic spasms</td>
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<td>Myoclonic seizures</td>
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<td>Focal seizures</td>
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(Generalized and bilateral) Tonic-clonic seizures

Tonic and Atonic seizures

10:00 AM  BREAK

10:15 AM  Session IV: Consideration for Syndromes

- 10:15am – Syndromes Overview  Dr. Rima Nabbout
- 10:35am – Specific syndrome examples: how they are typically defined
  o Lennox Gastaut Syndrome  Dr. Joseph Sullivan
  o Juvenile Myoclonic Epilepsy
  o Dravet Syndrome
- 10:55am – How to include a combination of syndromes in a basket trial that would be informative but is not a Phase III study  Dr. Dimitrios Arkilo

11:05 AM  Basket trial experience outside of epilepsy  Dr. David Whiteman

11:15 AM  Panel Discussion  Drs. Whiteman, Nabbout, Sullivan, Arkilo, Rogawski

12:00 PM  LUNCH

1:00 PM  Session V: Implications for Recruitment, Analysis & Development

3:45 PM  Wrap up and Conclusions

4:00 PM  Adjourn