

Activity Overview

Target Audience

This activity is designed for an audience of nurses, pharmacists, physicians, physician assistants, and social workers.

Learning Objectives

Upon completion of the educational activity, participants should be able to:

Session: Making visible the invisible: Cognitive and Behavioral Health in Muscular Dystrophy

- Highlight recent advances in our understanding of brain health in muscular dystrophy. Participants will also learn pragmatic approaches and available resources to help families navigate challenges in this domain.
- Explore the potential of MRI and ultrasound imaging measures as biomarkers of disease progression and treatment response in certain dystrophies.
- Discuss how operant approaches are largely ineffective for addressing chronic behavior challenges.
- Review mental, emotional/behavioral and learning concerns evident in DBMD population.
- Describe basic overview of brain dystrophin.
- Introduce conceptual framework for understanding and managing emotional/behavioral and learning concerns.

Session: Bone Health - Where have we been, where are we now, and where are we going?

- Review where we have been in bone health.
- Examine the view beyond the current guidelines of bone health.
- Discuss current guidelines and management of bone health.

Session: Digestive Health Impacts from Top to Bottom

- Recognize common GI conditions in DMD.
- Describe characteristics of swallowing deficits in DMD.
- Review the distinct nutritional phases of Duchenne Muscular Dystrophy and the challenges of nutritional assessment in this population.

Session: Diagnostic Testing Options

- Discuss the limitations of mutation detection in blood-derived genomic DNA tests.
- Review the need for RNA analysis in a subset of dystrophinopathy patients.
- Explain the molecular mechanisms that result in discordance with clinical testing predictions of the “reading-frame rule”.
- List some of the genetic neuromuscular disorders with specific, diagnostic pathologic features observable in a muscle biopsy.
- Describe the biopsy evaluation methods that provide diagnostic information in patients with genetic neuromuscular disease.
- Recognize some of the classic neuromuscular pathologic features associated with genetic myopathies and neuropathies.

Session: Supporting the Patient Throughout Their Journey

- Discuss the successful transition of the patient across developmental milestones from childhood to adulthood.
- Recognize the indication for palliative care and end of life decision making.
- Identify ways to represent the caregiver and family perspective of everyday life with neuromuscular disease.

Session: Registry Engagement Successes

- Explain the history, status and future direction of the MDA MOVR Data Hub.
- Express to patients and caregivers the numerous facets of the National ALS Registry and the importance of joining this research initiative.
- Identify the challenges in recruiting subjects to registries.
- Review The development of the CF Foundation data registry.
- Describe the possibilities to improve care using data registries.
- List challenges and opportunities that registries can provide.

Session: Leveraging Providers in the Community

- Identify ways to leverage community resources to supplement adherence to published care standards.
- Identify strategies for fostering communication between community-based providers and the specialist care team.
- Identify opportunities to effectively work and communicate with community-based services in public schools and the workplace (ex. IEP and 504 planning, workplace adaptations).
- Identify special issues related to transition to adult roles and adult care. (ex. transition to regional adult providers, occupational/vocational rehabilitation, college student care, etc.).
- Identify community resources who can promote activity to prevent secondary conditions.
- Identify home-based technologies that can supplement clinical follow-up in the community setting.
- Identify strategies for employing telehealth-enabled services and technologies (eg. remote telehealth assessments, pulmonary function monitoring, electronic patient-reported outcomes, oral analytics, sleep studies/overnight capnography).
- Identify areas where new technical tools are being developed to improve community functional ability (eg. augmentative communication tools, “wearable” robotics).

Session: Holistic Approach to Transitioning into Adulthood

- Discuss the importance of effective, multidisciplinary transition.
- Describe the barriers to transition in the neuromuscular population.
- Differentiate between transition and transfer.

Session: Therapy Interventions – Modify Therapy Approaches with Evolving Market Landscape

- Discover the impact of a novel therapeutic modality for optimizing movement in children treated for spinal muscular atrophy.
- Recognize the potential utility of isometric resistance exercise in patients with Duchenne muscular dystrophy.
- Select strategies to enhance the implementation of a remote exercise program.
- List three caregiver-reported benefits of home exercise training using a Therapeutic Play Gym for children with medically complex neuromuscular diagnosis.
- Examine how the CV-19 pandemic is rapidly changing future health delivery models, and how pediatric therapists may implement these changes within their clinical practice.
- Identify what resources may be available or are under development for exercise intervention in patients with disabilities.
- Identify who may be using these exercise resources.
- Identify limitations and strengths of current resources.
- Recognize needs for guidance for patients and other healthcare professionals utilizing resources.
- Describe how wearable technology can provide digital mobility outcomes for individuals with neuromuscular diseases in a disease modifying treatment landscape.
- Identify limitations to current consumer and research grade wearable technology.
- Describe validity and reliability of AI-enabled insole technology in controlled and real-world settings.
- Summarize the use of wearable sensors in quantifying infant movement and their application for infants with neuromuscular disorders.

Session: Future of Gene Therapy in NMD: Considerations for Newborn Screening & Clinical Trial Design

- Describe the process by which a disorder is nominated, approved, and implemented in NBS.
- Identify the very real factors that will make it difficult for NBS to quickly add new disorders, even those with transformative treatments.
- Suggest strategies for successful adoption of screening for neuromuscular disorders when treatments are proven and available.
- Discuss therapeutic options DMD, SMA, and related diseases.
- Explain some of the challenges for conducting ongoing clinical trials in these diseases.
- Review tools and approaches to overcoming clinical trials challenges.

Session: Practical Management of Gene Therapy: Procurement & Administration

- Discuss how to create a gene therapy standard operating procedure (SOP).
- Describe the process for implementing gene therapy in the clinic space, including required staff and parental education.
- Review challenges, including some real-world case examples, and how we can learn from experience to date in this area.
- Discuss a pragmatic approach to deciding which treatment is right for your child.
- Explain the timeline in which you should begin reaching out about trial access.
- Describe the commitment and importance of these trials, and why they matter.
- Recognize the importance of newborn screening and early diagnosis.
- Identify potential for changing disease progression with early treatment.
- Examine ways to leverage medicinal therapies and support services.
- Paraphrase the potential impact of continued research.
- Express the considerations when preparing for the assessment of a patient pursuing gene transfer therapy.
- Review the complexities and options for acquisition of specialty products.
- Discuss payor considerations and utilizing policies to optimize efficiency.
- Describe options for administration.
- Summarize the importance of ongoing coordinated specialty care for the patient with rare disease.

Session: Clinical Challenges in the Gene Therapy Era: Roundtable Discussion of Difficult Cases

- Discuss the difficulties that may be encountered in gene therapy administration.
- Identify options for addressing gene therapy-related challenges using real-world case examples.

Criteria for Success

There is no fee to participate in this activity. Statements of credit will be awarded based on the participant's attendance. A statement of credit will be available upon completion of an online evaluation/claim credit form available at:

<https://akhinc.formstack.com/forms/230003mda>

Please claim your credit by 3/31/2023

If you have questions about this CE activity, please contact AKH Inc at wendi@akhcme.com



CE credit provided by AKH Inc., Advancing Knowledge in Healthcare.



JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

In support of improving patient care, this activity has been planned and implemented by AKH Inc., Advancing Knowledge in Healthcare and MDA. AKH Inc., Advancing Knowledge in Healthcare is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.



IPCE CREDIT™

This activity was planned by and for the healthcare team, and learners will receive 9 Interprofessional Continuing Education (IPCE) credit for learning and change.

Physicians

AKH Inc., Advancing Knowledge in Healthcare designates this live activity for a maximum of 10 *AMA PRA Category 1 Credit(s)*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurses

Credit being awarded: 10 ANCC contact hours

Pharmacists

AKH Inc., Advancing Knowledge in Healthcare designates this continuing education activity for 10 contact hours.

Physician Assistant



AKH Inc., Advancing Knowledge in Healthcare has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for 10 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

Social Workers



As a Jointly Accredited Organization, AKH Inc., Advancing Knowledge in Healthcare is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. State and provincial regulatory boards have the final authority to determine

whether an individual course may be accepted for continuing education credit. AKH Inc. Advancing Knowledge in Healthcare maintains responsibility for this course. Social workers completing this course receive 10 continuing education credits.

Commercial Support

There is no commercial support for this activity.

Name	Relationship	Commercial Interest
Ajay Kaul, MD (faculty)	N/A	Nothing to disclose
Ambereen Mehta, MD, MPH, APHS (faculty)	N/A	Nothing to disclose
Alisha Pollastri, PhD (faculty)	N/A	Nothing to disclose
Ambereen Mehta, MD, MPH, APHS (faculty)	N/A	Nothing to disclose
Anne Connolly, MD (faculty)	Consultant, Independent contractor	Sarepta, Edgewise, Dyne, Biohaven, Scholar rock
Anthony Mozzone, BBM, CRT	Employee	Promptcare Companies
Brent Furbee, BS (faculty)	N/A	Nothing to disclose
Craig McDonald, MD (faculty)	N/A	Nothing to disclose
Crystal Proud, MD (faculty)	Advisor Researcher Speaker	Biogen, Sarepta, Novartis Gene Therapies, Genentech/Roche, Scholar Rock Biogen, Sarepta, Novartis Gene Therapies, Scholar Rock, Astellas, CSL Behring, Fibrogen, PTC, Pfizer Biogen
Daragh Heitzman, MD (faculty)	Consultant, Speaker Researcher	Cytokinetics, Amylyx Amylyx Pharmaceuticals, Cytokinetics, Ra Pharmaceuticals, Biohaven Pharmaceuticals, Clene Nanomedicine, Prilenia Therapeutics, Seelos Therapeutics, Anelixis Therapeutics
David Brumbaugh, MD (faculty)	Consultant	Amylyx, Cytokinetics
David Weber, MD, MSCE (faculty)	Consultant Researcher	PTC therapeutics Inozyme
Don Bailey, Ph.D. (faculty)	Researcher	Janssen Pharmaceuticals, Travere Pharmaceuticals, Orchard Therapeutics BioMarin, Sarepta Therapeutics
Diana Bharucha-Goebel, MD (faculty)	N/A	Nothing to disclose

Donovan Lott, PT, PhD, CSCS (faculty)	N/A	Nothing to disclose
Emma Ciafaloni, MD (faculty)	Advisor	Sarepta
Ericka Greene, MD (faculty)	N/A	Nothing to disclose
Erik Henricson, PhD, MPH (faculty)	Advisory Board Speaker	Santhera Pharmaceuticals, Sarepta Pharmaceuticals, PepGen, PTC Therapeutics Sarepta Therapeutics
Jacqueline Montes	Advisor	Biogen, F. Hoffman La Roche, Sarepta, Scholar Rock
Jaime Twanow, MD (faculty)	N/A	Nothing to disclose
Jenna Lammers, MSR/PT, CNT, PCS (faculty)	Executive Role	Boost Therapeutic Innovations, LLC
Jerry Mendall, MD (faculty)	N/A	Nothing to disclose
Katherine Matthews, MD (Planner)	Consultant	Sarepta
Katlyn McGrattan, PhD, CCC-SLP (faculty)	Consultant and Researcher	Biogen, Genentech
Keelie Denson (faculty)	N/A	Nothing to disclose
Kevin M Flanigan MD (faculty)	Advisor Royalties Research	Sarepta Therapeutics;Novartis, Encoded Therapeutics, Aavanti Therapeutics, Fibrogen, Biomarin Astellas Therapeutics Sarepta Therapeutics, Dyne Therapeutics
Kody Graves	N/A	Nothing to disclose
Sydney Graves	N/A	Nothing to disclose
Laura Watne, MS, RD, CSP (faculty)	N/A	Nothing to disclose
Leslie Nelson, PT, PhD (faculty)	Consultant	Biogen, Scholar Rock, Inc, Roche, Novartis
Lauren Treat MD (faculty)	N/A	Nothing to disclose
Mary Colvin, PhD (faculty)	N/A	Nothing to disclose
Mathula Thangarajh MD, PhD (faculty)	N/A	Nothing to disclose
Matthew Jacobson, MDiv, BCC	N/A	Nothing to disclose
Megan Iammarino	Consultant	Casimir, LLC
Melilan Rutter MD (faculty)	N/A	Nothing to disclose
Melissa McIntyre, DPT (faculty)	Consultant	Avidity Biosciences
Mike Singer, MD, PhD (faculty)	N/A	Nothing to disclose
Nat Nasomyont MD (faculty)	N/A	Nothing to disclose
Natalie Goedeker MSN, CPNP (faculty)	Advisor	Novartis Gene Therapies
Natalie Truba, PhD (faculty)	Speaker and Advisor	PTC Therapeutics
Paul Mehta, MD	N/A	Nothing to disclose
Preethish Kumar Veeramani MRCP (UK)., PhD (faculty)	N/A	Nothing to disclose
Rebecca Axline LCSW-S, CSM, (faculty)	N/A	Nothing to disclose
Rebecca Tesch RN, BSN, NCSN	N/A	Nothing to disclose
Richard Finkel, MD (faculty)	Advisor Consultant Researcher	Biogen, Genentech, Novartis, Roche, Scholar Rock AveXis, Roche, Ionis Biogen, Cytokinetics, Novartis, Genentech, Roche, Scholar Rock
Richard Shell, MD	N/A	Nothing to disclose
Robert Troxler MD (faculty)	Researcher	Genzyme, Santhera
Rupa Nallamothe MBBS (faculty)	N/A	Nothing to disclose
Tim Lotze, MD (faculty)	N/A	Nothing to disclose
Tina Duong MPT, PHD (faculty)	Consultant	Atom,Bioge, Dyne, Trinds
Steven Moore, MD, PhD, (faculty)	Independent Contractor	Sarepta Therapeutics, Inc., Flagship Biosciences, Inc., Vertex Pharmaceuticals, Inc., Solid Biosciences, Inc., Asklepios BioPharmaceutical, Inc. (AskBio), Avidity Biosciences, Inc. Fulcrum Therapeutics, Inc.
Dorothy Caputo, MA, BSN, RN, Senior Director of Continuing Education & Compliance	N/A	Nothing to disclose

Michele Bielarski, RN (planner/reviewer)	N/A	Nothing to disclose
AKH Inc Staff and Planners	N/A	Nothing to disclose
MDA Staff and Planners	N/A	Nothing to disclose
All of the relevant financial relationships listed for these individuals have been mitigated.		

Disclosures

It is the policy of AKH Inc. to ensure independence, balance, objectivity, scientific rigor, and integrity in all of its continuing education activities. The author must disclose to the participants any significant relationships with ineligible companies whose products or devices may be mentioned in the activity or with the commercial supporter of this continuing education activity. Identified conflicts of interest are mitigated by AKH prior to accreditation of the activity. AKH planners and reviewers have no relevant financial relationships to disclose.

Disclosure of Unlabeled Use and Investigational Product

This educational activity may include discussion of uses of agents that are investigational and/or unapproved by the FDA. Please refer to the official prescribing information for each product for discussion of approved indications, contraindications, and warnings.

Disclaimer

This course is designed solely to provide the healthcare professional with information to assist in his/her practice and professional development and is not to be considered a diagnostic tool to replace professional advice or treatment. The course serves as a general guide to the healthcare professional, and therefore, cannot be considered as giving legal, nursing, medical, or other professional advice in specific cases. AKH Inc. specifically disclaim responsibility for any adverse consequences resulting directly or indirectly from information in the course, for undetected error, or through participants misunderstanding of the content.