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Powering Independence:
Why Continuous Technical Education is the Lifeblood of Modern HME Field Service

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Maintaining high standards in home medical equipment service and repair requires far more than routine maintenance. It demands an ongoing commitment to technical education. Today's power wheelchairs, scooters and Complex Rehab Technology have evolved into sophisticated electronic systems, making continuous education an operational necessity for technicians.

Power mobility devices have evolved from basic spillable lead-acid batteries to advanced absorbed glass mat (AGM), genuine gel and emerging lithium technologies. Modern power wheelchairs also incorporate digital diagnostics and customizable programming parameters that allow technicians to review system data remotely and quickly troubleshoot issues, including those related to consumer charging habits.

Technicians who rely solely on traditional troubleshooting methods risk misdiagnosing power-draw concerns, prescribing incorrect charging profiles or replacing batteries prematurely. Ongoing battery education helps technicians understand several critical technical variables, including:

Technician consulting with a client about repairs.

Technician in-home inspection and repair.

- **Voltage thresholds:** Understanding the difference between cutoff voltages under load and resting-state voltages.
- **Thermal dynamics:** Recognizing temperature-related effects on battery performance and cycle life.
- **Chargers and charging protocols:** Matching chargers properly to batteries and educating consumers on best charging practices to maximize battery life and reliability.
- **Capacity testing:** Using calibrated capacity-testing equipment rather than basic load testers and multimeters to accurately assess deep-cycle battery health.

The rapid pace of technological change extends well beyond power mobility. Across industries ranging from biomedical, dental and imaging services to HVAC, automotive and industrial automation, the requirements for technical competency continue to evolve.

Mechanical systems increasingly rely on microprocessors, software interfaces and complex power-management systems. As a result, continuous education has become essential for technicians seeking to move beyond simple parts replacement and develop advanced diagnostic expertise.

For many commercial industries, equipment downtime affects productivity and profitability. In the home medical equipment sector, however, equipment downtime can limit an individual's mobility and independence within their own home. While technical education helps protect revenue across industries, it also supports quality of life for individuals who depend on mobility equipment.

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Technician making repairs in shop.

Technician testing electronics and making repairs in shop.

Manual wheelchair repair by technician in-shop.

First-time fix rates are an important measure of operational efficiency for home medical equipment providers. Regular training helps technicians accurately diagnose mobility equipment issues, reducing repeat service visits and associated costs. It can also improve consumer confidence by increasing the likelihood that repairs are completed correctly and promptly.

Beyond operational concerns, home medical equipment directly affects user safety. An improperly configured seating controller or an undetected electrical fault can contribute to equipment failure, loss of positioning or other safety risks. Incorrect battery or charger selection may also affect equipment reliability, daily use and the ability to travel with a power wheelchair on commercial airlines.

Ongoing training reinforces safety procedures, proper battery handling practices and compliance with accreditation standards related to power mobility equipment and components.

The home medical equipment industry also continues to face a shortage of skilled technical professionals. Investing in structured educational pathways, certifications and hands-on training demonstrates a commitment to workforce development and employee growth.

Technicians who are confident in their troubleshooting abilities often experience less burnout, provide stronger customer service and take pride in helping individuals maintain their mobility, independence and safety.

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Larry Carter is from Dallas, Texas, and has held several positions with MK Battery since joining the company in 1995. He currently serves as MK's western regional sales manager and national sales training manager. Carter has worked closely with various home medical equipment providers and provider groups nationwide, as a workshop presenter, conducting battery training sessions for technicians and Assistive Technology Professionals. Carter has worked within the battery industry for over 42 years with experience in all aspects of lead battery applications and technologies, including sealed valve regulated lead acid batteries used in mobility and other critical power applications.