Case: Ahmed is in the fourth grade and is using an Omnipod 5 insulin pump to manage his diabetes. He has recess and then gym immediately following his lunch period. Not surprisingly, he has been experiencing daily episodes of hypoglycemia (low blood glucose, also called low blood sugar) in the afternoon that prevent him from fully participating in the activities he enjoys most.

The school nurse, Monica, recognizes his current school plan is not working and carefully reviews Ahmed’s Diabetes Medical Management Plan (DMMP). His plan outlines a few strategies to help prevent hypoglycemia during physical activity, including reducing the lunchtime insulin dose by inputting fewer carbohydrates and/or using the exercise feature on his pump. When Monica calls Ahmed’s mother, his mother states that she prefers to lower his lunch insulin dose by changing his carb ratio from 10 to 14. She also says she will reprogram his pump when Ahmed returns from school today.

As this is a change in the insulin dosing, Monica is worried she cannot take this adjustment from the parent without a revised order from Ahmed’s diabetes provider. However, Ahmed’s DMMP indicates that his parents are authorized to make changes within certain parameters, which would include this adjustment.

Discussion: School nurses will encounter a wide spectrum of parental involvement in directing their child’s diabetes care, including the adjustment of insulin dosing.

- The degree of parental involvement in making insulin dose adjustments is influenced by their experience, training, comfort level with their child’s diabetes management and diabetes technologies, and their relationship with their diabetes provider.

- Diabetes providers may have different attitudes and practices regarding the parent’s participation in management decisions. This is often individualized based on the family’s diabetes management experience and the child’s glucose management. Over time, families are often encouraged to learn how to make dose adjustments.

- School nurses must follow the laws governing their nursing license, which includes taking medication orders from licensed providers.

- Though Ahmed’s parents are adjusting his medication dosage, his health care provider indicated that this was permissible within certain parameters. This is a continuation of existing medication orders, rather than a new order, and is acceptable. The school nurse should update Ahmed’s care plan with the conversation with his mom regarding the new insulin-to-carb ratio.

- A student’s DMMP should recognize the importance of the school nurse and facilitate the use of strategies and technologies to prevent hypoglycemia. This may include modifications such as bolus dose reductions for physical activity, adjusting the amount of carbohydrates given...
to more precisely prevent low glucose levels, use of temporary basal rates in traditional insulin pumps, and/or use of exercise or activity modes in automated insulin delivery systems. The DMMP may acknowledge and authorize parents who participate fully in their child’s care to make dose adjustments within certain guidelines.

• In circumstances where the parent is permitted to modify insulin doses, school nurses should discuss any concerns regarding a parent-recommended dose adjustment with the parent and/or the child’s diabetes provider. Had Monica not found authorization for parental changes, she should also request updated orders in writing from the diabetes provider.

• Each child will require a different level of support from the school nurse. The key to success is clear communication between the members of the student’s health care team (family, school nurse, and health care provider). The goal is to ensure the current plan is providing good blood glucose management at school while minimizing interruptions for the student to optimize learning and full participation in all aspects of school life. And when the child is not achieving good blood glucose management, continue to work together to achieve improvement.