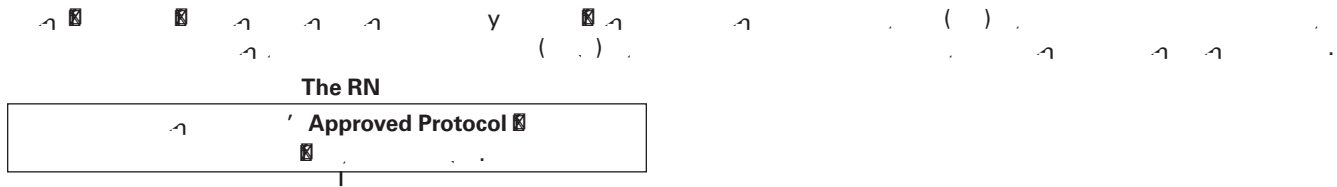


**I**n South Dakota (SD) in 2008, legislative efforts were moving forward to pass a bill allowing unlicensed assistive personnel (UAP) to administer insulin and provide other diabetes care in the school

diabetes who were enrolled in kindergarten through second grade; 66 parents participated. The researchers were seeking to identify and assess the type of insulin therapy provided, who provided the insulin and other diabetes care tasks, and where the insulin and other care was provided. Results revealed that more than half of the children used insulin pumps. Most children who received insulin during the school day administered the medication themselves in the classroom. Children unable to self-administer insulin most often relied on teachers, parents, and teacher's aides to help them. The authors concluded that children

## Steps of RN Delegation and UDA Process of Insulin Administration



clinical outcomes suggested RNs can safely delegate and supervise insulin administration to appropriately trained, competent UAP.

### Surveys

Before and after the study, surveys were sent to the parents and participating school personnel to rate the perceived level of ability of the school to provide safe care to a child with diabetes using the virtual nurse model of care. Overall, the results showed large changes in both the parent's perceptions of the school's ability to provide safe care and in school personnel's perceptions of their ability to provide safe care. The survey findings complemented the clinical outcome data and supported the safety and efficacy of RNs delegating and supervising diabetes clinical care tasks, including insulin administration, to trained UAP using the virtual model of nursing care.

### Establishing a Protocol and Training Process

Upon completion of the study, the principal investigators shared the results with an advisory stakeholder council. The council, which consisted of CDEs, virtual nurses, a research advisor, parents of children with diabetes, primary care providers, school administrators, nursing administrators, and representatives of the SD Diabetes Coalition, SD School Nurses Association, SD Department of Health, and SD Nurses Association, met with the investigators throughout the study. The role of the council was to guide and assist with the implementation of the project and to identify and support policy recommendations for regulatory changes. After reviewing the results of the study, the advisory council supported making changes to the Administrative Rules of SD (ARSD) to allow the delegation of insulin administration to trained UAP. (See Figure 1.) The only stakeholder group that opposed this policy change was the SD School Nurses Association. Instead, it recommended a nurse be available in every school to administer insulin and provide other diabetes care tasks.

## South Dakota's Administrative Nurse Delegation Rules

- **20:48:04.01:09. Registration required for delegated medication administration.** . . . . . y . . . . . -  
 . . . . . 20 48 04.01 10 . . . . . 20 48 04.01 11 . . . . . y . . . . . -  
 . . . . .     . . . . .  . . . . .   . . . . . y . . . . . -  
 y      . . . . .  . . . . .   . . . . . y . . . . . -
- **20:48:04.01:11. Medication administration tasks that may not be routinely delegated and require written protocol.**   -  
 20 48 04.01 . . . . .  y . . . . .  y . . . . . -  
 (1).   . . . . .   . . . . . y . . . . .  . . . . . -  
 (2).  . . . . .  . . . . .  . . . . . 34-20 -  
 16 34-20 -17 . . . . . 20 48 04.01 10(3) . . . . .  . . . . . -  
 (3).  . . . . . y  . . . . .  20 48 04.01 16 20 48 04.01 17.  
  . . . . .   . . . . . (0( ) . . . . . -
- **ARSD 20:48:04.01:16. Written protocol required for the delegation of insulin administration by the subcutaneous route to unlicensed assistive personnel.** . . . . .   . . . . .  . . . . . (0( ) . . . . . 0 .

With input from the advisory council, new rules were successfully promulgated in ARSD Chapter 20:48:04.01 and implemented on July 1, 2014 (See Table 1). SD's nursing delegation rules (SD Legislature, 2015) are organized into three sections:

1. Allowed delegation of medication administration.
2. Medication tasks that may not be routinely delegated and require written protocols.
3. Medication administration tasks that may not be delegated.

The first section allows nurses to delegate medications administered by the oral, rectal, topical, vaginal, or inhalation routes.

The second section permits nurses to delegate certain medication tasks but only with a written protocol in place. Protocols are required to delegate the administration of the initial dose of a medication not previously administered and to delegate medication

ordered on an as-needed basis. This section was amended to allow a nurse to delegate insulin administration with a written protocol in place and according to two new rules, ARSD 20:48:04.01:16 and 20:48:04.01:17. The written protocol was developed with the guidance of the advisory council and subsequently approved by the BON. (See Table 2.)

The third section of the delegation rules, medication administration tasks that may not be delegated, was also amended. This section prohibits nurses from delegating certain tasks, including administering Schedule II controlled substances from a locked stock supply, administering medications via a tube inserted in a cavity in the body, calculating medication doses, administering medications via inhalation route in a complex nursing situation, and administering medications by the intramuscular, intradermal, intravenous, or subcutaneous routes. An

exception was added to this rule to allow nurses to delegate subcutaneous administration of insulin as authorized in ARSD 20:48:04.01:11. Another rule, ARSD 20:48:04.01:09, was amended to require a nurse only delegate medication administration to UAP registered with the BON. This change allows the BON to create a registry for medication aides and a second registry for diabetes aides.

#### **UDA Training and Proficiency Development**

To help persons meet the requirements for becoming a registered unlicensed diabetes aide (UDA) and accept the delegated task of insulin

administration, the BON developed standardized training and testing. The BON contracted with two CDEs to help develop the RN train-the-trainer course, a 5-hour UDA training course, and the UDA final examination.

The RN train-the-trainer course consists of completing the UDA training modules and additional modules on delegation considerations, documentation considerations, and competency assessment

helpful diabetes websites, local and national diabetes groups, and companies to contact for training supplies.

The UDA course consists of modules on legal considerations, diabetes basics, nutrition, carbohydrate counting and physical activity, blood glucose monitoring, insulin basics, methods of insulin administration, hypoglycemia, glucagon administration, hyperglycemia and ketones, documentation, and universal precautions. Videos were developed to complement the didactic information and include topics on carbohydrate counting, blood glucose testing, insulin administration using an insulin pump, insulin administration using a vial and syringe, insulin administration using a pen device, and glucagon administration. The delegating RN is accountable for completing a 5-hour skills lab with the UAP and for validating skills performance using a checklist developed by the BON. The checklist documents competency in five training areas: blood glucose monitoring, urine ketone testing, carbohydrate counting, insulin administration, and glucagon administration. The UAP must complete the training and skills performance before sitting for the final UDA examination.

The UDA examination is a standardized test developed by the BON and the two CDEs. The test plan was based on the training and includes weighted categories on the following content: diabetes basics, hypoglycemia and hyperglycemia, glucagon administration, documentation, and universal precautions; blood glucose monitoring; insulin types and methods of administration; and nutrition, carbohydrate counting, and physical activity. A total of 80 questions were written, validated using recent literature, and placed into a master test pool in one of the weighted categories. Ten additional items were written and validated as pretest items. After the BON approved the test plan, two examinations were created. Each has a total of 50 items, 40 different master test pool questions and 10 pretest items. After an applicant completes the online examination, he or she receives either a pass or a fail. Applicants who fail are allowed to retake the al 0.01and physical acd.s8 Tc 0c 0.0095y8(s; items.01(uc)e1(.)1Anhe)1(1(p)p1(li)c(ta)11(t)1wh(t)1(f(ta)il i)1(N)-8( )J-0.017 Tc -0.0