Did You Look?

Healthy Skin Starts with You!

This program made possible through an unrestricted educational grant from Smith & Nephew

Overview

- This training bundle includes:
  - Information for providers about skin care for patients with spina bifida
  - Tools for providers to use in caring for patients with spina bifida
  - Tools for patients and families for self care

Training Objectives

- State the incidence of skin breakdown in children and adults with Spina Bifida
- Discuss the rationale for this bundle
- Describe the history of bundle development
- Describe risk factors and strategies to prevent skin breakdown in individuals with Spina Bifida
- Demonstrate documentation of the use of the bundle

Overview of Spina Bifida

Spina Bifida is:

- the most common, disabling birth defect, occurring in 3.1 individuals per 10,000 children and adolescents
- the failure of neural tube closure in the developing fetus
- potentially debilitating with possible impairments in mobility, cognition, urinary and fecal continence, and an accumulation of secondary conditions, which may require numerous medical and surgical interventions throughout the lifespan

Pressure Ulcers in Spina Bifida

- Pressure ulcers are a major comorbid condition with Spina Bifida.
- Pressure ulcer prevalence in adults with Spina Bifida is reported at 34% (McCann, J. & McDonnell, G., 2003).
- Annual prevalence rates of pressure ulcers in individuals with Spina Bifida of all ages reported in the literature vary from 15% - 77%.

Pressure Ulcers in Spina Bifida

- Between 2009-2012, 26% of patients age 2 or older included in the National Spina Bifida Patient Registry reported having a pressure ulcer.
- 19% of patients age 2 or older had one within the past year (Kim et al, 2015).
- Cost of individual patient care ranges from $20,900 to $151,700 per pressure ulcer (AHRQ , 2016).

Care Bundles

- A care bundle is a set of interventions that, when used together, significantly improve patient outcomes.
- Care bundles incorporating best practices are likely to lead to better outcomes (IHI, 2016).
- Research on priority populations has been emphasized and encouraged by AHRQ, but research results lag in their ability to identify evidence-based solutions to improving healthcare safety, quality, efficiency and effectiveness.
- Pressure ulcer prevention strategies in the form of a care bundle reduced the incidence in an inpatient setting (Baldelli & Paciella, 2008).

Skin Integrity Work Group

- The development of this care bundle grew out of our concern for Spina Bifida patients and their risk for skin breakdown.
- Practitioners from NSBPR Clinics partnered with the CDC and SBA to review best practices. This care bundle is based on the findings of that review.

Common Types of Skin Breakdown

- Pressure Ulcers
  - localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear.
    (NPUAP)
- Incontinence dermatitis
  - Inflammatory response of the skin to prolonged or repetitive contact with urine, stool or both.
    (Doughty, 2012)
- Intertriginous dermatitis
  - Inflammation and denudation of the skin between opposing skin folds
    (Doughty, 2012)
- Burns

Differentiating Skin Breakdown

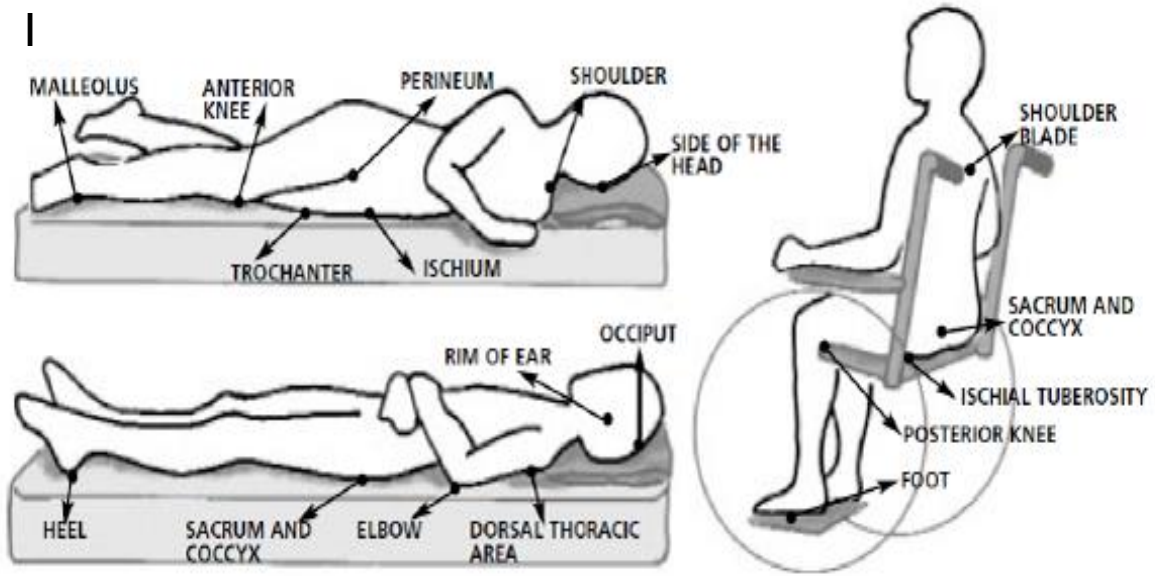
Wound type	Location	Depth	Characteristics	Exposure
Pressure ulcer	Over bony prominence Under medical device	Full-thickness* (extension to subcu, muscle, bone) May initially present as suspected deep tissue injury	Undermining and tunneling common Slough and eschar common	Pressure and/or shear
Incontinence-associated dermatitis	Perineal and perianal areas Inner thighs	Superficial/partial thickness	Maceration of surrounding skin common	Stool and/or urine
Intertriginous dermatitis	Buttocks Intergluteal cleft Base of pannus Underneath breasts Groin folds	Superficial/partial thickness	Maceration of surrounding skin common	Perspiration with or without friction

http://www.o-wm.com/files/owm/owm_april2012_doughty_table1.jpg

Common Areas of Skin Breakdown

The most common areas of skin breakdown related to pressure or sheering are the bony prominences. These diagrams highlight those pressure points that deserve special attention on daily skin checks.

#1



http://sipa.ngo/wp-content/uploads/2015/11/pressure_ucler_drawing.png

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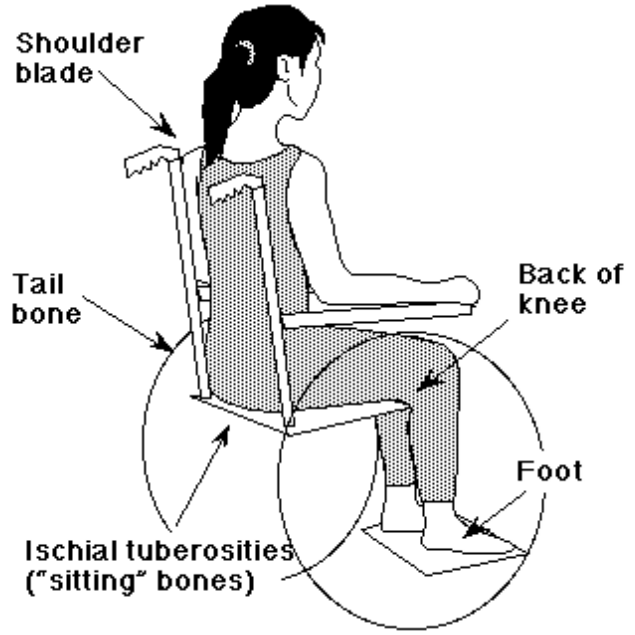


http://www.spinal-injury.net/spinal-injury-network/images/chair-pressure-points.gif

Risk Factors for Skin Breakdown

Individuals with Spina bifida are at increased risk for skin breakdown secondary to:

- Sensory loss
- Excessive moisture
  - Bowel incontinence
  - Bladder incontinence
  - Perspiration
- Bony deformity
- Immobility
- Obesity
- Executive function challenges

Why should we look in clinic?

2010 study at Gillette Children's Specialty Health Care titled-"Lower Body Skin Inspection to Determine the Incidence of Pressure Ulcers in Individuals with Spina Bifida. "

Results:

- 50% of patients with spina bifida (both adults and children) when asked if they had a wound said no and on skin inspection wounds were found
- Wound severity ranged from rashes to stage IV pressure injuries

Objectives of the Skin Integrity Bundle

- Complete the spina bifida skin risk assessment
- Complete a spina bifida skin assessment
- Teach parents/caregivers and patients how to prevent and identify skin breakdown

“Did You Look?” Skin Integrity Bundle

- Components
  - On line clinic staff training
  - Staff training manual- including patient goals and prevention activities for each risk factor
  - Skin risk assessment tool, the Risk Assessment Scale
  - Skin inspection tool
  - Mirror decal (available in the future)
  - Age specific parent/caregiver/patient handouts
  - Poster

Training Manual

- The training manual has been developed to teach providers to teach their patients and parents/caregivers how to check for skin problems every day, and how to prevent them from happening in the first place
- Sections include: assessment tools and chapters for each risk factor

Skin Inspection

- Explain procedure to patient/family
- Ensure adequate lighting in room
- Have a blanket to keep patient covered
- Wash hands, wear gloves
- Ask the patient/family about where sensation changes
- Have patient use hand mirror to follow along with inspection.
- Inspect all insensate skin for color changes and/or signs of breakdown
- Generally easiest to go from top to bottom

Skin Inspection (Continued)

- Pay particular attention to bony prominences, contractures, skin folds, perineal area
- Palpate (touch) skin to feel for changes in temperature, texture, boggy feeling
- Inspect for redness, pain, open skin.
- Provide education to family/patient as you are inspecting
  - Areas to pay close attention to
  - Areas of redness
  - Areas of open skin

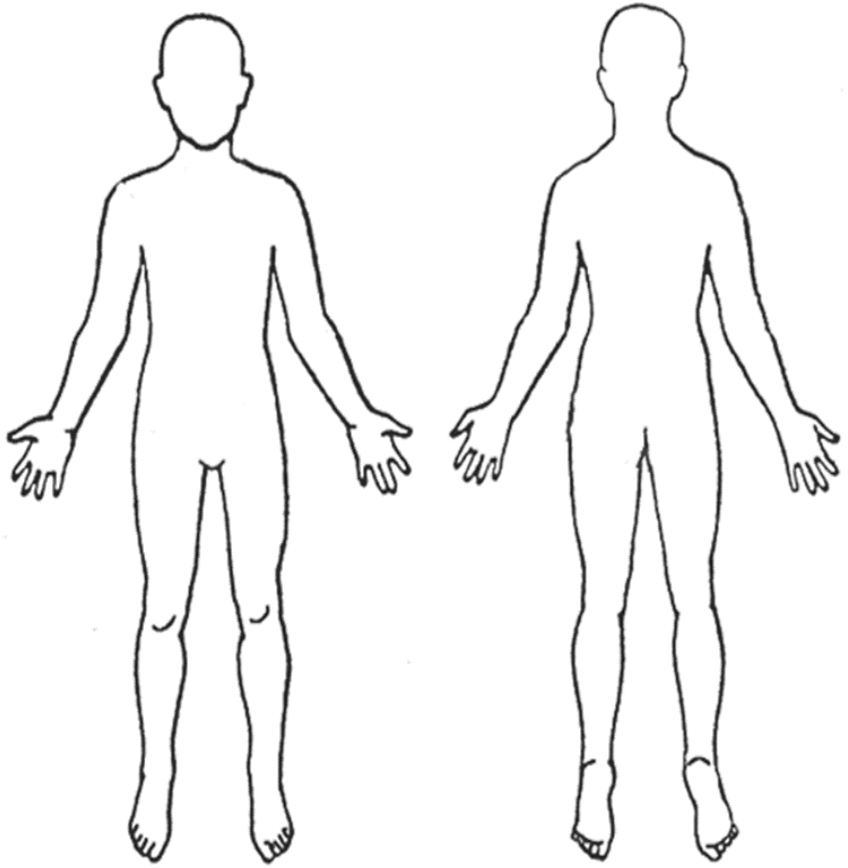
Skin Inspection (Continued)

- Assist patient to redress and assume a comfortable position
- If needed created a plan to address any concerns noted in the skin inspection

Skin Inspection

A skin inspection is highly recommended at every clinic visit.

- This is a suggested method that can be used to document issues related to skin integrity. Though we realize clinics are using EMRs, this is a tool that can be used as you examine the skin which will document the skin issues pictorially.
- Directions:
  - Ask the patient where there is little to no sensation and note on the diagram using dashed lines - - - .
  - Inspect the skin, especially at and below the dashed lines and carefully look at areas under pressure, under braces, exposed to moisture, and bony prominences (hip bones, tailbone, heels, outer ankles, and between knees).
  - Use the diagram to note breakdowns, using these labels: C=cool, M=open area, R=redness, H=hot, U=unknown irritation, #=swelling or edema
- □ **Check box if no insensate areas**



Assessing Risk for Skin Breakdown

- A validated tool used commonly for assessing risk of skin breakdown is the *Braden Scale for Predicting Pressure Sore Risk (*Copyright, Braden and Bergstrom, 1988)
- The scale being implemented here was developed specifically for the spina bifida population and has not yet been validated
- The goal is to distinguish patients who have different degrees and types of risk so that interventions can be tailored to the risk level
  - The red, yellow, and green zones correspond to the calculated risk with red being the greatest concern
- The following tool assesses risk of patients with spina bifida for skin breakdowns. Columns A-E are risk factors that account for skin breakdowns. Check one box per column that best describes the patient's current status, then look to column F for guidance on how to proceed with patient and caregiver education.

Risk Assessment Scale

A.TOUCH PERCEPTION	B. MOISTURE	C. MOBILITY	D. FRICTION/SHEARING	E. SKIN BREAKDOWN	
□ **Completely Limited** Sensory impairment of the *sitting surface and both legs* OR more severe (i.e., impairment over most of body)	□ **Constantly Moist** Skin is moist by perspiration or incontinence almost 100% of the time.	□ **Completely Immobile** In an average hour, almost never makes even a slight change in body position either independently or by directing others.	□ **Problem** Constant pressure/ shearing on bony prominence and requires maximum assistance in moving	□ **Problem with Breakdown in the past year.**	If at least 1 red box checked: Highest Risk Category ➢ Provide verbal education relevant to the checked red and yellow categories to the left. ➢ Distribute the Did You Look pamphlet.
□ **Very Limited** Sensory impairment of *both legs* that limits ability to feel/respond to touch	□ **Very Moist** Skin is moist by perspiration or incontinence about 75% of the time.	□ **Very Limited** In an average hour, makes slight changes in body position 1-3x either independently or by directing others.	□ **Problem** Constant pressure/ shearing on bony prominence and requires minimum assistance in moving, OR uses leg braces that *repeatedly* rub against the skin.		
□ **Slightly Limited** Sensory impairment in *one leg* that limits ability to feel/respond to touch	□ **Occasionally Moist** Skin is moist by perspiration or incontinence about 50% of the time.	□ **Slightly Limited** In an average hour, makes frequent changes (at least 4x) in body position but may be too slight to be effective.	□ **Potential Problem** Offloads on bony prominence but may require minimum assistance in moving esp. when lying, OR uses leg braces that *occasionally* rub against the skin.		If no red, but at least 1 yellow box checked: Moderate Risk Category ➢ Provide verbal education relevant to the checked yellow categories to the left. ➢ Distribute the Did You Look pamphlet.
□ **No Impairment** *No sensory impairment* that would limit ability to feel/respond to touch	□ **Rarely moist** Skin is usually dry OR individual is not incontinent.	□ **No Limitations** Makes major and frequent changes in position.	□ **No Apparent Problem** Maintains *good* sitting or lying position and requires no assistance in moving. If needed, leg braces fit properly.	□ **No Apparent Problem** No breakdown in the past year.	If all green: Lowest Risk Category ➢ Provide verbal education on general skin integrity principles using the poster

Care Recommendations

This table demonstrates the use of the risk assessment scale and relates it to the educational effort that should correspond to the risk.

If at least 1 red box checked: • Highest Risk Category • Provide verbal education relevant to all checked red and yellow categories • Distribute the Did You Look Pamphlet
If no red, but at least 1 yellow box checked: • Moderate Risk Category • Provide verbal education relevant to all checked yellow categories • Distribute the Did You Look Pamphlet
If all green: • Lowest Risk Category • Provide verbal education on general skin integrity principles using the poster

Adjusting the Risk Level

Clinicians can increase the risk level if additional clinical risk factors are present:

- presence of shunt or reduced executive functioning
- myelomeningocele subtype
- elderly or adolescent
- higher level lesion
- wheelchair use
- urinary incontinence
- above the knee orthopedic surgery
- any recent surgery
- male gender
- immobility
- impaired sensation
- not wearing shoes
- obesity
- poor nutrition
- increased body temperature
- presence of a pressure sore
- prior history of a pressure sore
- hypoperfusion state
- peripheral vascular disease
- diabetes
- smoking
- restraint use
- epidural/spinal pain medication
- end of life care
- prolonged procedures
- emergency room stay of > 4 hours
- general poor health

Principles of Patient/Family Education

Several factors may influence how a patient/family uses the information:

- A family's cultural concepts of self-care and independence
  - Not all families value self care equally
  - The prevalence of NTDs is highest among Hispanics, therefore culturally appropriate SB education is important

Principles of Patient/Family Education

- The patient's executive functioning (a set of skills that help people get things done, like paying attention, managing time)
  - Many children and adults with spina bifida struggle with executive functioning and this can have an impact on self care
  - Challenges with executive functioning may not be obvious by looking at someone
- The model of transition care within the patient's care center
  - Transition programs may be formal or informal, and may begin as young as 12 or as old as 21
  - Education, especially in the area of self care, will be an important component of a transition program

Section 1: General Skin Care

- Patient goals:
  - To develop awareness of areas where there is limited or no sense of touch
  - Remember to conduct daily skin assessment
  - Identify differences in skin color, temperature and texture
  - Recognize and report concerns

Suggested activities:

- Tickling, peek-a-boo with body parts, hide a sticker
- Daily reminders using chart, phone app, or calendar
- Practice checking skin to learn to recognize changes
- Protect insensate areas with long pants, shoes – especially when outside or swimming
- Wash, dry and lotion your skin

Section 2: Pressure/Friction/Shearing

- Patient goals:
  - Be aware of movement or activities that may scrape the skin
  - Become familiar with activities that relieve pressure
  - Remember to relieve pressure every 15 minutes
  - Become familiar with appropriate seating
  - Independently engage in activities to relieve pressure
  - Recognize and report concerns
- Suggested activities
  - Encourage "wiggles" when watching TV, reading, or during other sedentary activities
  - Look for devices that remind you to move – Wobl watch
  - Check tightness of clothing, diapers, braces, shoes
  - Review pressure relieving activities and appropriate pressure relieving cushions

Section 3: Moisture

- Patient goals:
  - Conduct skin inspection for moisture
  - Learn to keep skin healthy
  - Recognize and report concerns
  - Aim for continence

- Suggested Activities
  - Change diapers often in little ones
  - Work towards continence from early age
  - Wash areas affected by incontinence ASAP – reminding them that bacteria increases the risk of skin breakdown
  - Keep skin clean and dry
  - Clean, dry, seamless socks
  - Deodorant isn't just for under the arms

Section 4: Heat

- Patient goals:
  - Be able to identify heat sources
  - Learn to check bath and shower water and temperature of surfaces
  - Learn to avoid direct and indirect contact with warm/hot surfaces

- Suggested activities
  - Check water temperature and encourage to use a bath water thermometer
  - Check playground and other surfaces that have been exposed to sun
  - Check car seats
  - Check radiators – both direct and indirect contact

Section 5: Overall Physical Condition

- Patient goals:
  - Maintain appropriate weight for age
  - Support good nutrition through a varied diet
  - Encourage healthy food choices and appropriate portion sizes
  - Continually reassess overall physical condition
- Suggested activities
  - Encourage them to monitor weight using charts or apps
  - Drink water!
  - Encourage foods high in Omega 3 fatty acids
  - Discuss other health issues that may affect skin such as scars, poor circulation, diabetes

Did you look?
Healthy skin starts with you!

- Prevention starts with a look- poster content
  - Conduct daily skin checks
  - Control moisture
  - Avoid pressure
  - Eat right and drink enough fluids
  - Act quickly if you see areas of redness or other problems

When to call your clinic team

- A reddened area of skin that does not fade after 15 minutes
- Unusual warmth or swelling that lasts longer than 15 minutes
- Blisters, open areas on the skin, scrapes, or draining wounds
- A black, leathery area
- Equipment that needs repair, like braces

Patient/parent/caregiver handouts

- As part of the Skin Integrity Bundle, age specific handouts are available to reinforce information about skin care and for your patients and families to take home to reinforce the messages
- Ages include infants and toddlers, school age children, adolescents and adults
- The handouts should be downloaded and printed for your use

Process for in clinic use of the Skin Integrity Bundle

- Conduct a comprehensive skin assessment using the Risk Assessment Scale and the Skin Inspection form
- Introduce the Skin Care Training to the patient/parent/caregiver
- Review the content of age specific handout, covering all areas
- Use the poster to reinforce the message

Additional Resources

- Braden Scale for Predicting Pressure Sore Risk www.bradenscale.com
- Institute for Healthcare Improvement. (2011). How to guide: Prevent pressure ulcers.

  How-to Guide: Prevent Pressure Ulcers | IHI - Institute for Healthcare Improvement
- National Pressure Ulcer Advisory Panel www.npuap.org
- Center for Disease Control and Prevention - Spina Bífida

  Free Materials on Spina Bifida | CDC

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Contributors

Patricia Beierwaltes, DNP, CPNP
Assistant Professor
Minnesota State University – Mankato
360 Wissink Mankato, MN 56001
507-389-2758
313-610-8001
pbeierw@gmail.com

Katherine Ong, PhD
Public Health Program Specialist
ORISE Fellow
Child Development & Disability Branch
Division of Human Development and Disability
National Center on Birth Defects and Developmental Disabilities
Centers for Disease Control and Prevention
404-498-6279
ykt4@cdc.gov

Kathryn Smith, RN, MN, DrPH
Associate Professor of Clinical Pediatrics
Keck School of Medicine, University of Southern California
Co-Director, Spina Bifida Program, Children's Hospital Los Angeles
4650 Sunset Blvd., Mailstop 53 | Los Angeles, CA 90027
323-361-8301
323-361-8305 fax
kasmith@chla.usc.edu

Jen Bain
Health Communications Specialist
McKing Consulting
Rare Disorders and Health Outcomes Team
Child Development & Disability Branch
Division of Human Development and Disability
National Center on Birth Defects and Developmental Disabilities
Centers for Disease Control and Prevention
404-498-0084
vme8@cdc.gov

Margaret Carey RN, MS, CPN, CNRN
Myelomeningocele Program
BCMH Service Coordinator
Nationwide Children's Hospital
700 Children's Drive
Columbus, OH 43205
(614) 722-6265
(614) 722-4966 fax
margaret.carey@nationwidechildrens.org

Jonathan Castillo, MD, MPH
Assistant Professor, Developmental Pediatrics
Baylor College of Medicine
Texas Children's Hospital
8080 North Stadium Drive, Suite 180
Houston, Texas 77054
513-348-4190
jcporter@texaschildrens.org

Contributors

Brad E. Dicianno, MD
Associate Professor
University of Pittsburgh Medical Center
Dept. of Physical Medicine and Rehabilitation
Kaufmann Medical Bldg, Suite 202
3471 5th Avenue
Pittsburgh, PA 15213
412-648-6666
dicianno@pitt.edu

Daria Ettinger R.N. Senior Research Associate
Institute in Development and Disability
Oregon Health and Science University
707 SW Gaines Street
Portland, Oregon 97239
503-494-2757
ettinger@ohsu.edu

Will Foran, PT, PCS
Assistant Professor, Pediatrics
Institute on Development & Disability
Oregon Health & Sciences University
707 SW Gaines Street
Portland, OR 97239
503-494-5819
foranw@ohsu.edu

Judy Griffey RN-BC, MS
Advanced Practice Nurse
BCMH Service Coordinator
Myelomeningocele Program
Nationwide Children's Hospital
614-722-5727
614-722-4966 fax
judy.griffey@nationwidechildrens.org

Victoria L. Hobensack, RN, MS, CNP
Pediatric Nurse Practitioner
Myelomeningocele, Down Syndrome, and Developmental Disability Programs
Nationwide Children's Hospital
614-722-5726
614-722-4966 fax
victoria.hobensack@nationwidechildrens.org

Bethany Sloane, PT, DPT
Assistant Professor, Pediatric Physical Therapy
Oregon Health & Sciences University
Institute on Development & Disability
707 SW Gaines Street
Portland, OR 97239
304-280-8275
sloaneb@ohsu.edu

Contributors

Sara Struwe, MPA
President & CEO
Spina Bifida Association
1600 Wilson Blvd, Suite 800
Arlington, VA 22209
202-618-4747
sstruwe@sbaa.org

Judy Thibadeau, R.N. M.N.
Health Scientist
Division of Human Development and Disability
National Center on Birth Defects and Developmental Disabilities
Centers for Disease Control and Prevention
404-498-3559
jthibadeau@cdc.gov

Elisabeth Ward R.N., M.P.H.
Carter Consulting Incorporated
National Spina Bifida Program
National Center on Birth Defects and Developmental Disabilities
Centers for Disease Control and Prevention
404-498-3975
404-498-3060 fax
ikt3@cdc.gov

Jennifer Wilhelmy CWCN, APRN, CNP
Gillette Children's and Lifetime Specialty Healthcare
435 Phalen Blvd
St. Paul, MN 55130
651-634-1936
651-265-7363 fax
E: jwilhelmy@gillettechildrens.com