Title:

SPECIAL SESSION: Research Passages in Cancer Symptom Management and Lymphedema

Presenter: Sheila Hedden Ridner, PhD, RN, FAAN

# Type:

Oral

### **Keywords:**

lymphedema, program of research and symptom management

#### **Summary:**

A program of research in cancer symptom management and lymphedema will be discussed. Measurement development, descriptive, and interventional research studies will be covered. The implications of the program of research on policy, clinical care, and mentoring of a new generation of nurse scholars will also be discussed.

#### Final Number:

K 12 Slot: K 12: Saturday, 29 July 2017: 3:30 PM-4:00 PM

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#### **Learning Activity:**

	LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
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The learner will be able to articulate economic findings regarding lymphedema.	Results of two studies that evaluated the economic impact of lymphedema after breast cancer treatment and the use of compression devices to treat lymphedema will be presented.
The learner will be able to name two assessment tools available for use in the assessment of cancer patients.	The VHNSS and the LSIDS self-report tools will be presented.
The learner will be able to state three key impacts from a successful program of research.	Specific policy and clinical impacts will be presented, along with implications for mentoring.

## Abstract:

Dr. Ridner began her research career in 2006. She quickly became recognized internationally as nurse scientist because of her expertise in cancer symptom management, and more specifically, her research related to lymphedema. Dr. Ridner's research has included clinical descriptive studies that established the first known lymphedema symptom cluster and identified social marginalization of patients with lymphedema as a significant problem. Her longitudinal descriptive study of patients with head and neck cancer found a high rate of lymphedema in survivors of head and neck cancer (about 90%), bringing this previously unknown problem to the forefront. She has been a team member on two studies that addressed economic issues related to lymphedema subsequent to their cancer treatment; and, 2) the health and economic benefit of using pneumatic compression pumps as a component of lymphedema self-care.

Dr. Ridner has been actively involved in the development of both self-report and physiological patient assessment tools for use in the cancer and lymphedema populations. With a team of Vanderbilt scientists, Dr. Ridner assisted in the development and testing of the Vanderbilt Head and Neck Symptom Survey (VHNSS) Versions 1 and 2, and in the initial testing of a self-report symptom assessment tool for patients with recurrent cancer of the head and neck. The VHNSS is the most used symptom assessment tool for patients with head and neck cancer in the USA. She is leading the development and testing of a battery of self-report symptom assessment tools for patients with lymphedema. The Lymphedema Symptom Intensity and Distress Survey-Arm has been published and leg, truncal, and head and neck tools are in final testing. The LSIDS-A has been translated to Turkish and is being used in international clinical and research settings in both English speaking (Australia) and non-English speaking (Turkey) countries. Her physiological measurement studies served as some of the foundational work that lead to the development of recommendations for lymphedema measurement standards for Accredited Breast Centers in the United States. Another of her studies established that breast cancer survivors with lymphedema can and will use bioelectrical impedance to self-monitor their arm swelling and that such use improves self-care. In Sept. 2016 Dr. Ridner's team successfully conducted the first human factors study for a new lymphedema self-measurement bioelectrical impedance device.

Interventional studies have also been a focus of Dr. Ridner's program of research.

One study demonstrated the effectiveness of advanced pneumatic compression devices on arm and truncal swelling; another demonstrated the effectiveness of low-level lasers on arm swelling and skin condition in breast cancer survivors with lymphedema. A third found that tailored Yoga improved the symptom burden of head and neck cancer survivors, while a fourth study found that a web-based multi-media intervention improved mood in breast cancer survivors with chronic lymphedema.

Currently, Dr. Ridner is the PI for a large, international, multi-site lymphedema prevention study. The study will enroll over 1,000 patients world-wide, approximately 800 have been enrolled to-date.

Dr. Ridner's work has been impactful. One area of major impact to science has been in developing assessment and measurement tools that filled gaps for both patient self-report instruments and physiological monitoring of lymphedema. This improves the quality of patient assessment in clinical environments and adds value to the clinical service provided. A second area of impact has been in conducting and disseminating information from studies regarding the psychosocial and physical impact of cancer related lymphedema on patients. These studies provided information regarding previously unidentified and poorly understood symptoms experienced by patients with cancer and cancer survivors. Dr. Ridner has been sought out by industry to assist in the development and testing of medical devices that will affect not only cancer patients and those with lymphedema, but also obese patients and those with congestive heart failure. This demonstrates that nurses can assume leadership in non-traditional research environments.

Dr. Ridner's program of research will leave a lasting legacy for nursing science, as she has mentored multiple new nurse scientists to successful independent careers and is currently an active mentor to multiple other future nurse scientists.