

## **Extrauterine Growth Restriction in a Neonatal Intensive Care Unit in Argentina**

**Catherine R. Coverston, Lisa Roos**

**Purpose:** To determine the incidence and attributes of extrauterine growth restriction (EGR) in a public NICU in Argentina with the goal of using that data to obtain funding to improve the conditions.

**Research Questions:** What is the incidence of extrauterine growth restriction in the NICU in Argentina as measured by weight at 28 days of life or discharge when compared to corrected age using intrauterine/extrauterine growth charts?

What is the weight gain rate of the study infants while in the NICU?

At what age do the infants reach intrauterine growth rates?

**Methods:** The setting was a large NICU in the poorest province of Argentina. Subjects were premature neonates, 27-34 weeks gestation, born in 2003 at the public maternity hospital in Argentina. Although nearly 1300 infants met the inclusion criteria, only about one-fourth either survived to 28 days or had adequate records to determine weight change. Data was collected by chart review and using the hospital database of births. Statistical analysis includes both birth weight and gestational age analysis to determine the incidence of EGR.

**Findings:** Significant EGR was found in the NICU. The smallest infants had the greatest deficits in growth.

**Conclusions/Recommendations:** Current feeding practices are not meeting the needs of preterm infants in the NICU. Many of the problems are likely related to resources. The solution lies in finding an intervention that can increase weight gain without requiring significant financial resources that are unlikely to become available. There are some strong possibilities from recent research and current protocols in the U.S. A grant could provide immediate relief to trial experimental feedings leading to an understanding of potential cost savings and change of treatment based on the economic potential as well as better outcomes for the infants.

ATTACHMENT #1

## BIOGRAPHICAL DATA FORM

**Instructions:** DUPLICATE THIS FORM AS NECESSARY. Information for each person must be typed directly on this form. **DO NOT** submit a resume or curriculum vitae **in lieu of** or **in addition to** the Biographical Data Form. Wording such as "see attached..." **will not be accepted** on the Biographical Data Form. The Biographical Data Form should focus on the unique qualifications of this faculty member to present the assigned material.

Name: Catherine R. Coverston, PhD, RNC  
(Name and Credentials)

Preferred Address: 544 SWKT BYU

City: Provo State: UT Zip: 84602

Preferred Telephone: 8014225613

Present Position (Employer, Title and Description): BYU, Associate Professor, Teach in undergraduate program: women's health and international nursing

### Education (Include basic preparation through highest degree held.):

	Institution	Major Area of Study	Year Degree Awarded
1.	<u>University of Utah</u>	<u>Nursing</u>	<u>PhD 2001</u>
2.	<u>Medical College of Gerogia</u>	<u>Parent-child Nursing</u>	<u>MSN 1089</u>
3.	<u>Regent's College, U. of the State of NY</u>	<u>Nursing</u>	<u>BS 1987</u>
4.	<u>Brigham Young University</u>	<u>Nursing</u>	<u>AS 1969</u>

Briefly describe your professional experience or areas of expertise (including publications) related to your involvement in continuing nursing education and your particular role, e.g. planner, peer reviewer, administrator, content specialist, etc.

I am an expert in Perinatal nursing. I currently teach obstetrical nursing and international nursing. I have taught neonatal intensive care as an elective. My international experiences with students and my experience in Perinatal nursing are basic qualifications for this research. I have been educated in program evaluation and have used these skills to implement cost-effective care in the international arena. I have an article that will be published in March on this topic. I am a member of both the AWHONN and the National Association of Neonatal Nurses. I have contributed as a content specialist to the Core Curriculum of Maternal-Newborn Nursing.

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Name:     Lisa Roos, BS Student      
(Name and Credentials)

Preferred Address:     544 SWKT BYU    

City:     Provo     State:     ut     Zip:

Preferred Telephone:     801-371-6119    

Present Position (Employer, Title and Description): BYU, Research Assistant Assisting with data collection and analysis for Catherine Coverston

### Education (Include basic preparation through highest degree held.):

Institution	Major Area of Study	Year Degree Awarded
1. <u>BYU</u>	<u>Nursing</u>	<u>Projected graduation Spring 2005</u>

Briefly describe your professional experience or areas of expertise (including publications) related to your involvement in continuing nursing education and your particular role, e.g. planner, peer reviewer, administrator, content specialist, etc.

I worked with Dr. Coverston in data collection in Argentina. My primary responsibilities are data organization and management and data analysis. I have expertise in Excel, Powerpoint for display and analysis of data.

## PRESENTER PARTICIPATION FORM

Name: \_\_\_\_\_ Catherine Coverston, Lisa Roos \_\_\_\_\_

- A. Check how you, the presenter, are involved in planning and evaluating this presentation. (Check all that apply)

Discussed with planners the needs of the target audience

Developed and /or provided input on objectives

Established content

Will review evaluation(s) / summary

- B. I plan to use the following learning principals in my presentation. (Check all that apply)

Establish a "need to know" of participants

Incorporate the use of various senses: sight, sound (AV, Hand-Outs), touch

(doing)

Engage audience in discussion based on content

Use multiple teaching techniques to meet various learning styles of participants  
(lecture, discussion, Q&A)

Incorporate target audiences past experiences

Establish a positive environment for learning

Other (specify)

- 
- C. All presenters must declare any vested interest in order to ensure that all continuing education activities are free from bias.

Describe

NA

# DOCUMENTATION FORM

Brigham Young University 28<sup>TH</sup> Annual Research Conference

Presenter's Name \_\_\_ Catherine Coverston; Lisa Roos \_\_\_\_\_

If working on computer disk, use "table" functions to add cells on to this pre-made table

<b>OBJECTIVES</b>	<b>CONTENT (TOPICS)</b>	<b>TIME FRAME</b>	<b>PRESENTER</b>	<b>TEACHING STRATEGIES</b>
List the educational objectives for each presenter which define the expected outcomes for the learner	Provide an outline of the content / topic presented and indicate to which objective(s) the content / topic is related	Provide a time frame for content / topic area	List the presenter for each topic or content area	List the teaching strategies used by each presenter for all topic or content areas
1. Describe the risk factors for Extrauterine Growth Restriction.	A. What is EGR? B. Risk Factors C. Focus for intervention	5	Coverston	Powerpoint Lecture
2. Describe how EGR was identified in the hospital and what nurses can do to identify it in their own.	D. Describe the research protocol E. Describe some of the problems with data collection and record keeping	5	Roos	Powerpoint Lecture
3. Describe what was found in the research and what that indicates for your own practice.	F. Present the findings	10	Coverston	Powerpoint Lecture
4. Discuss interventions that may decrease the incidence of EGR in NICUs wherever they are	G. Interventions related to feeding H. Interventions related to record-keeping	10	Coverston/ Roos	Powerpoint Lecture Discussion

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