DECLARATION:

I, Cheryl Mackay, declare that this research report is my own work. It is being submitted for the degree of Master of Medicine in the branch of Paediatrics in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

Signed: ________________________________

__________________ day of ______________ 2010
Dedicated to my parents

Judy and David Mackay
ABSTRACT

INTRODUCTION: Improved survival of VLBW infants is raising several management issues. An example is that of growth and growth monitoring.

AIM OF THE STUDY: To assess the growth of a cohort of VLBW infants born at CMJAH from term CGA to 20 months CGA.

METHODS: A retrospective chart review was conducted on 139 VLBW infants (birth weight ≤ 1500g) born at CMJAH between 1 July 2006 and 28 February 2007.

RESULTS: Comparison with a term growth reference showed initial growth failure followed by gradual catch up growth but with persistent deficits in length for age. Comparison with international VLBW references showed similar growth for weight and head circumference for age but with deficits in length for age. Growth parameters of the study sample were similar to those of other South African VLBW infants.

CONCLUSION: Growth and growth monitoring in VLBW infants is complicated by characteristic growth patterns, high associated morbidity, controversies surrounding ideal growth and lack of an ideal growth reference. Significant deficits in length for age in the study sample may have been due to the large proportion of infants born SGA and the high prevalence of stunting in South African children. Current recommendations for growth monitoring of VLBW infants include the use of a VLBW reference up to two years CGA followed by a term growth reference thereafter.
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NOMENCLATURE:

AGA  
Appropriate for gestational age

BPD  
Bronchopulmonary dysplasia

BMI  
Body mass index

CDC  
National Centre for Health Statistics and the Centre for Chronic Disease Prevention and Health Promotion

CGA  
Age corrected for gestational age

CMJAH  
Charlotte Maxeke Johannesburg Academic Hospital

HMD  
Hyaline membrane disease

HREC  
Human research Ethics committee

ICU  
Intensive care unit

IHDP  
Infant Health and Development Program

IMCI  
Integrated Management of Childhood Illness

IVH  
Intraventricular haemorrhage

LBW  
Low birth weight

MRI  
Magnetic resonance imaging

NEC  
Necrotizing enterocolitis

NICHD  
National Institute of Child Health and Human Development

SD  
Standard deviation

SGA  
Small for gestational age

UN  
United Nations

VLBW  
Very low birth weight

WHO  
World Health Organization

WHO-CGS  
World Health Organization Child Growth Standards