Hypertensive disorders of pregnancy among mothers of medically fragile infants
Alison M. Stuebe1,2, Christine Tucker2, Kristin Tully2, Katherine Bryant1, Erin McClain1, Renée Ferrari3, Sarah Verbiest1,4
1School of Medicine, 2Gillings School of Global Public Health, 3Cecil G. Sheps Center for Health Services Research, 4School of Social Work, University of North Carolina, Chapel Hill, NC

BACKGROUND
Mothers of medically fragile infants (MMFI) must recover from birth while attending to an infant in the neonatal intensive care unit (NICU). MMFI are also more likely to have a hypertensive disorder of pregnancy that requires a blood pressure check within 10 days postpartum.

OBJECTIVE
We sought to quantify the prevalence and early postpartum (PP) follow-up assessments for hypertensive disorders of pregnancy among MMFI. These findings will inform new clinical strategies for addressing the postpartum health needs of MMFI.

METHODS
We conducted a retrospective cohort study of mothers of liveborn infants delivered at North Carolina Women’s Hospital between July 1, 2014 and June 30, 2016. We defined mothers of well babies (MWB) as mothers of infants who were not admitted to an intensive care unit and were discharged to home. We defined MMFI as mothers of infants with a total neonatal intensive care unit and pediatric critical care unit length of stay ≥3 days. Outcomes were ascertainment from the UNC Perinatal Database and the Carolina Data Warehouse for Health, which includes data from the Epic®/UNC electronic medical record (EMR). We ascertained hypertensive disorders using blood pressures (BP) that were measured in routine clinical care between 20 weeks of pregnancy and PP discharge, which we abstracted from the Epic EMR.

RESULTS
Severe hypertension was defined as ≥ 2 severe BP measurements (Systolic BP ≥160 or Diastolic BP ≥110) > 4 hours apart.
Mid hypertension was defined as ≥ 2 mild BP measurements (SBP ≥140 or DBP ≥90) > 4 hours apart.
An early postpartum blood pressure follow-up assessment was considered indicated for a diagnosis of pregnancy-induced hypertension, preeclampsia, eclampsia, or HELLP syndrome.
Diagnoses were abstracted from the medical record by chart review.
Completion of the postpartum BP follow-up assessment was indexed by a documented BP in the UNC EMR between postpartum discharge and 10 days after delivery.
We used chi square test to compare rates of mild and severe hypertension and completion of recommended follow-up after maternal discharge among MMFI, MTII, and MWB.
P values less than 0.05 were considered statistically significant.

RESULTS
One in four MMFI met criteria for severe hypertension, as did one in five MTII

CONCLUSIONS
Although mothers of infants who were admitted to the NICU were more likely than MWB to complete a blood pressure check by 10 days, fewer than 1 in 4 underwent recommended assessment.
MMFI whose infants remained hospitalized at UNC through 10 days postpartum were no more likely than MMFI whose infants had been discharged to have had a blood pressure check (22.8 vs. 22.9%, p=0.99)

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