

of adult supervision among those discharged home (45%). Discharge to a psychiatric facility versus to the home was more likely among adolescents who were depressed (OR 7.9, $p < .01$), delusional (OR 6.3, $p < .05$), had previous suicide attempt (OR 5.7, $p < .001$), and had continued suicidal ideation (OR 17.1, $p < .0001$). **Conclusions:** Evidence from a chart-based review shows that quality of care differs from national guidelines. Standardized psychosocial assessment procedures during medical hospitalization should be developed and implemented to ensure the safety of adolescents who attempt suicide.

254

THE MEDICAL NECESSITY OF PEDIATRIC SEXUAL ASSAULT EVALUATIONS. L. Giacobbe, K. Bolton, S. Lahoti, M. McNeese, R. Girardet, The University of Texas at Houston Health Sciences Center, Houston, TX.

Purpose: Children who are alleged victims of sexual assault are often referred for medical evaluation by parties whose primary interest is the collection and documentation of forensic evidence. The objective of this study was to determine, for a population of children who underwent a medical examination following alleged sexual assault, the proportion for whom an important medical and/or psychological diagnosis was made during the evaluation. **Methods:** Medical records of children who presented to a child advocacy center for a sexual assault examination from December 1, 2003 through April 30, 2004 were reviewed for forensic findings and medical and psychological diagnoses. Only diagnoses that were judged by the physician to require intervention at the time of the evaluation were considered. **Results:** 473 children (81% girls) presented to the advocacy center for a sexual assault examination during the study period. Of these, 9 refused or deferred all or part of the medical examination. A medical or psychological diagnosis that required intervention by the examiner was made for 123 children (26%). Of these, 39 diagnoses (representing 8% of the total study population) had the potential to result in significant patient morbidity if not immediately addressed. In contrast, 44 children (9%) had "probable" or "definite" physical or laboratory evidence that supported the allegation of sexual assault. **Conclusions:** In our population, the number of children who had a medical and/or psychological diagnosis was significantly higher than the number of children with probable or definite evidence of penetrating anogenital trauma or sexual contact. The number of children with diagnoses that could have resulted in significant morbidity was nearly the same as the number with evidence of sexual assault. **Implications:** In many busy medical settings, following a screening examination by a physician, the collection of forensic evidence from sexual assault victims is performed by providers who are not licensed to diagnose and treat medical conditions. Our results demonstrate the importance of careful physician oversight of sexual assault evaluations.

255

LEVEL OF PHYSICAL ACTIVITY, DIETARY HABITS AND BODY MASS INDEX IN RURAL YOUTH PARTICIPATING IN 2003 NATIONAL YOUTH SPORTS PROGRAM. B. Spear, S.B. Wallace, A. Marcich, T.Y. Simpson, M.K. Oh, University of Alabama at Birmingham, Birmingham, AL.

Purpose: To determine the prevalence of youth who have a body mass index (BMI) \geq 85th percentile and related characteristics (elevated blood pressures, dietary and physical habits) among rural participants. **Methods:** Cross-sectional assessment of adolescents (ages 10 to 14 years) participating in the 2003 National Youth Sports Program (NYSP) in a rural southeastern US city was done. Heights, weights, and blood pressures were collected during pre-participation examinations. BMIs and percentiles were calculated based on gender standards. During the first week of the 2003 NYSP, a questionnaire regarding dietary habits and physical activities was administered. Descriptive and bivariate analyses were performed using SPSS software. **Results:** 236 youth (mean age 11.9 years) had pre-participation examinations; 8 were excluded for invalid variables, resulting in 228 analyzable participants. The mean BMI percentile was at the 70th (range 1–99th). 42% ($N = 99$) of the youth had a BMI \geq 85th percentile for their age and gender. Having an elevated systolic or diastolic blood pressure (greater than 90th percentile for height and gender) was significantly associated with having a BMI \geq 85th percentile ($p = .015$ and $p = .022$ respectively). Of those who received medical assessments, 124 youth had completed questionnaires. 85% of respondents reported both eating less than 4 fruits and vegetables per day; 78% had 2 or more sodas per day, and 50% drank milk one time or less per day. Fast food was eaten more than twice per week by 81% of participants and 59% visited the convenience store more than twice per week for snacks. 61% stated that they ate breakfast five times or less per week. From the questions regarding physical activity, 78% and 57% of youth respectively watched TV or played computer/video games more than 3 hours per day. 68% stated that there was not a park near their house, with 71% stating that they did not feel safe getting physical activity at a park. Nearly half (48%) did not participate in a sport team after school. No significant associations between having a BMI \geq 85th percentile and these dietary or physical activity habits were found. **Conclusions:** The study demonstrated the need for interventions to promote healthy eating and physical activities in rural NYSP participants. Programs targeting obesity prevention and intervention as well as blood pressure control are feasible in this setting. The NYSP, often implemented through venues at historically black universities/colleges, is attended by over 50,000 disadvantaged youth annually.

256

PEDIATRIC HYPERTENSION: TOO COMPLICATED TO RECOGNIZE. C.K. Mitchell, J.A. Theriot, J.G. Sayat, S.M. Franco, Department of Pediatrics, University of Louisville, Louisville, KY.

Purpose: To determine whether pediatric providers recognize elevated blood pressures. The hypothesis is that fewer than 50% of elevated blood pressure values in children are recognized. **Methods:** Children aged 3 to 17 years presenting for well visits at two university-based pediatric clinics, from July 31 to August 15, 2003, were included. Height, weight, and systolic blood pressures (SBP) and diastolic (DBP) were obtained. Height and body mass index (BMI) percentiles were determined. Using current table-based standards, SBP and DBP values were categorized as normal ($< 90^{\text{th}}$ %), borderline (90% to 94%), or hypertensive (95% or higher). Statistical analysis was done using chi-square test for dichotomous and the Student t -test for continuous variables with p values $\leq .05$ considered significant. **Results:** Of the 287 children, 161 (56.1%) had normal BP; 35 (12.2%) were borderline; and 90 (31.4%) were in the hypertensive range. The mean BMI was significantly higher (79%) for children in the hypertensive than in the normotensive (60%) range ($p < .001$). Only 13 (14.6%) with hypertensive BP were identified as elevated, which is significantly less than 50% recognition ($p < .001$). The mean BMI percentile was 92 for those recognized compared to 76 for those

with unrecognized BP elevations ($p = .001$). **Conclusions:** While it is likely that most elevated blood pressures obtained in the pediatric office do not represent hypertension, the diagnosis of hypertension is dependent upon the recognition of abnormal values. Given the current complexity for determining hypertension, it is not surprising that only 11% of elevated BP were recognized in this study. Hypertensive values in normal-weight children were recognized significantly less often than in the children with higher BMI percentiles. Future efforts should be directed towards developing a simpler definition of pediatric hypertension, one that is preferably based on the pathophysiological consequences than on statistical patterns.

257

CERVICAL ATYPIA AND HIGH-RISK HUMAN PAPILLOMAVIRUS AMONG SEXUALLY ACTIVE ADOLESCENTS ATTENDING LSUHSC-S CLINICS. J.M. Matthews-Greer, D. Rivette, G. Caldito, E.A. Turbat-Herrera, J.A. Bocchini, Louisiana State University Health Sciences Center, Shreveport, LA.

Purpose: To determine the extent of cervical atypia and high-(cancer) risk (HR) human papillomavirus (HPV) infection among girls in our LSUHSC-S population, we manually reviewed records for a one-year period (September 2003–August 2004). **Methods:** Our cohort consisted of 2201 girls, aged 11–19 years, who underwent a pelvic examination with cytologic screening. Signal amplification using a probe cocktail which detects 13 HR types (Digene Hybrid Capture 2) is performed on all liquid-based gynecology specimens that are read as having atypical squamous cells of undetermined significance (ASCUS), atypical glandular cells (AGC) or ASC-cannot rule out high grade squamous intraepithelial lesion (ASC-H). HPV testing on specimens showing higher grade atypia is rarely done, unless specifically ordered by a clinician. **Results:** Of the total 2201 Pap smears from girls less than 20 years old, 24% were abnormal: 10% had atypical cells, 13% had low grade squamous intraepithelial lesions, and 1% had high grade lesions. Of 234 girls with atypical cells who underwent reflex testing, 85% had virologic evidence of HR HPV.

| Age Yrs | No. Paps | % Atypical Paps | No. HPV Tests | % HR HPV Positive |
|---------|----------|-----------------|---------------|-------------------|
| 11 | 2 | 0 | 0 | — |
| 12 | 10 | 10% | 0 | — |
| 13 | 50 | 18% | 6 | 83% |
| 14 | 101 | 19% | 10 | 80% |
| 15 | 233 | 23% | 24 | 88% |
| 16 | 321 | 26% | 32 | 94% |
| 17 | 411 | 23% | 40 | 85% |
| 18 | 474 | 30% | 63 | 89% |
| 19 | 600 | 22% | 59 | 76% |
| Total | 2201 | 24% | 234 | 85% |

Conclusion: Cervical atypia is common among 11–19 year-old girls at LSUHSC who underwent pelvic examinations; 85% with cervical atypia had evidence of HR HPV infection. This underestimates the true prevalence of HR HPV among these adolescents since HR HPV testing was not performed on girls with normal cytology. Although most HPV infections are transient, these data should be considered when planning HPV vaccine trials.

258

PNEUMOCOCCAL CONJUGATE VACCINE INCREASED NASOPHARYNGEAL BACTERIAL COLONIZATION IN CHILDREN WITH ACUTE OTITIS MEDIA. K. Revai, D.P. McCormick, J. Patel, J. Grady, K. Saeed, T. Chonmaitree, University of Texas Medical Branch, Galveston, TX.

Background: Pneumococcal conjugate vaccine (PCV7) is directed against the 7 most common serotypes of *Streptococcus pneumoniae* (*Sp*) causing invasive diseases. It has potential coverage for 57–85% of *Sp* serotypes causing acute otitis media (AOM). PCV7 reduces AOM incidence by 6–8% and reduces *Sp*-AOM by 34%. PCV7 may prevent AOM through reduction of nasopharyngeal (NP) colonization of vaccine serotypes of *Sp*; studies have shown this finding in healthy infants after PCV7 vaccination. No study compares NP bacterial colonization during AOM in the pre- and post-PCV7 vaccination eras. **Methods:** Children (6 mos.–6 yrs) were enrolled in AOM studies between 9/95 and 5/04. NP swab was obtained at the diagnosis of AOM. Bacterial cultures were performed by standard methods; *Sp* isolates were not serotyped. **Results:** Of 439 subjects, 215 were enrolled prior to PCV7 availability (historical controls); 224 were enrolled after PCV7 licensure; 126 of these were considered underimmunized, 98 were adequately immunized. Overall, *Sp* was isolated from 49% of cases, nontypeable *H. influenzae* (NTHi) from 34% and *M. catarrhalis* (*Mc*) 60%. NP colonization rate for *Sp* was not different between the 3 groups.

| Number of Bacteria | Controls $n = 215$ | Underimmunized $n = 126$ | Immunized $n = 98$ |
|-----------------------|-----------------------|-----------------------------|-----------------------|
| <i>S. pneumoniae</i> | 105 (49) | 63 (50) | 46 (70) |
| <i>H. influenzae</i> | 68 (32) | 41 (33) | 41 (42) |
| <i>M. catarrhalis</i> | 120 (56) | 72 (57) | 70 (71) |

There was no difference in penicillin-resistant *Sp* (PR-*Sp*) between groups, but there was a yearly trend for reduction in number and rate of colonization with PR-*Sp* in children diagnosed during the PCV7 era. Colonization with NTHi tended to increase in PCV7 immunized children ($p = .19$). Colonization with *Mc* was significantly higher in immunized children ($p = .0259$). Combining 3 bacteria for each case, the mean number of bacteria in immunized children was significantly higher than controls ($p = .05$). **Conclusion:** In children with AOM, immunization with PCV7 did not reduce *Sp* colonization in the NP, although there was a trend for reduction in rates of PR-*Sp*. Increase in colonization by NTHi and *Mc* resulted in increased overall NP colonization with pathogenic bacteria. The clinical significance of this finding deserves further investigations.