PROTECTING THE FUTURE

-ISSUES IN ADOLESCENT HEALTHCARE

Kelly Skelly, MD
Associate Professor
Department of Family Medicine
kelly-skelly@uiowa.edu
Objective

- Discuss the significance of adolescence as a developmental stage and how it relates to future health problems.
- Consider the emerging research on the “teen brain” and how it affects adolescent care.
- Don’t miss topics in adolescent well care.
- Review of immunizations recommendations.
ADOLESCENT

- **noun**: a juvenile between the onset of puberty and maturity

- Worldwide, there are 1.5 billion people between the ages of 12 and 24.

  *(World Development Report 2007)*
For the youngers

- Set the stage - get the others out of the room
- Do you smoke? Do you know anyone who smokes?
- Do you drink alcohol? Do you know…
- Do you smoke pot? Do you know…
You can’t make this stuff up

Dr. Skelly,
I am interested in microchipping. Christina. What do you know about this and where can I get this done?
Jane
PUBERTY GROWTH CURVE

Peak height velocity/Calcium deposition/Stress fracture risk

Average age to begin:  
- Boys 11.6 years
- Girls 10 years (White American)
  8.9 years (African American)

PHV – Peak Height Velocity

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Diagrammatic representation of the bone mass life-line in individuals who achieve their full genetic potential for skeletal mass and in those who do not. (The magnitude of the difference between curves is not intended to be to scale). Along the bottom of the graph are several factors known to be of particular importance. Data from Robert P. Heaney, 1999.
Key point!

- By 9 yo (at younger ages), talk about calcium in diet
- Peak growth and sports association with stress fractures
HEADSSS

- **Home**
- **Education (Eating/Employment)**
- **Activities**
- **Drugs**
- **Sex**
- **Suicide (Safety)**
- **Spirituality**
Key point- Safety

- Bike helmets
- Seatbelts
- Sleep
- Bullying
How safe do you feel?

- At home?
- At school?
- In your neighborhood?

Assess risk of being BULLIED or a BULLY.
- How do you identify yourself?
At risk for bullying? LGBTQ

- 82% of LGBT youth had problems during the previous year with bullying about sexual orientation.
- 32% did not go to school for at least one day because of feeling unsafe.
- In 2012, Hatzenbuehler and Keyes- bullying statistics improved when school policies against bullying included LGBT youth.
- 42% of LGBT youth have experienced cyber bullying.

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Assess risk for bullying: ?LGBT?

- Cyberbullying and violence is linked to PTSD in teens (02/26/2016)
- Lasting damage seen in LGBT teens who suffer harassment (2/11/2016)
Key point

- Ask about bullying
Scenario #1:  
The “sports physical”

It’s been a busy day, and James is your last appointment. You enter the room at 4:50, and your nurse wants to leave at 5PM …

- James just turned 17.
- Ht 50%, Wt <50%, BMI 19
- BP 130/80, HR 100 regular, normal temp and RR
- His mother phoned her permission for James to be seen and sent her HQ, which you have with James’s.
What next?

- PE: SMR (Tanner) 3-4
  - Where is James on the puberty curve?
  - Risk for stress fracture?
  - What immunizations does he need?
  - Anticipatory guidance- sexual activity, sports enhancing drugs?
  - concussion
concussion

- Pricier football helmets don’t offer extra protection
- SCAT3
- Pre-participation assessment
Key point

- Mention concussion
Obesity

- Contrary to popular opinion, overweight and obesity probably result from small, incremental increases in caloric intake (or increases in sedentary activities).
  - 1 soda a day = 1.25 lb/month
  - 1 doughnut a day = 2 lb/month
- TV/screen time
- Family meals
Key point

- Don’t avoid this- look at BMI.
Screens and Technology

- 22% 6th graders over 6 hours a day (30%+)
- >50% log on to a social media site more than once a day.
- 75% own cell phones (25% use them for social media, 54% use them for texting, and 24% use them for instant messaging).
Issues with Technology

Most risks fall into the following categories:
- Peer-to-peer
- Inappropriate content
- Lack of understanding of online privacy issues
- Outside influences of third-party advertising groups

Obesity

Tired in school

Key Point

Need to ask two questions about media use at every well-child or well-adolescent visit:

1. How much screen time is being spent per day; and
2. Is there a TV set or internet connection in the child’s bedroom? Where does the phone stay at night?
You can’t make this stuff up

Hello. Its me your favorite patient. Marsha. Here is my cheerleading picture from this year and my prom picture from last year. I have changed a lot and I haven't been in for an appointment to see you which I need to because I've had sex and I want to be on birth control.
SEX, Contraception, STI

- Pap smears- not until age 21
- STI testing- symptoms= genital exam, otherwise, urine antigen in sexually active under age 25
- HPV vaccine (3)- age 11 or 12 years and females 13-26yo, male 13-21yo not previously vaccinated
Consider LARC

- 42% adolescents 15-19 yo have had intercourse.
- IUD or contraceptive implant
Key point

- This may be your only chance to impact sexual health
Other vaccines

- Flu shot
- Tdap age 11-12 (then td every 10)
- Meningitis (menactra, new meningococcal b)
  - Young adults 16-23 “may be” MenB
  - First year college students in residents halls less than 21 if not after age 16
- Varicella
- Pneumococcal- two vaccines PCV13 and PPSV-23-
  high risk- asthma, diabetes, smokers, etc.
<table>
<thead>
<tr>
<th>7–10 YEARS</th>
<th>11–12 YEARS</th>
<th>13–18 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tdap</td>
<td>Tetanus, Diphtheria, Pertussis (Tdap) Vaccine</td>
<td>Tdap</td>
</tr>
<tr>
<td>MCV4</td>
<td>Human Papillomavirus (HPV) Vaccine (3 Doses)²</td>
<td>HPV</td>
</tr>
<tr>
<td></td>
<td>Meningococcal Conjugate Vaccine (MCV4) Dose¹</td>
<td>MCV4 Dose¹</td>
</tr>
<tr>
<td>Influenza (Yearly)⁴</td>
<td>Booster at age 16 years</td>
<td></td>
</tr>
</tbody>
</table>

**FOOTNOTES**

1 Tdap vaccine is recommended at age 11 or 12 to protect against tetanus, diphtheria and pertussis. If your child has not received any or all of the DTaP vaccine series, or if you don’t know if your child has received these shots, your child needs a single dose of Tdap when they are 7–10 years old. Talk to your child’s health care provider to find out if they need additional catch-up vaccines.

2 All 11 or 12 year olds—both girls and boys—should receive 3 doses of HPV vaccine to protect against HPV-related disease. The full HPV vaccine series should be given as recommended for best protection.

3 Meningococcal conjugate vaccine (MCV) is recommended at age 11 or 12. A booster shot is recommended at age 16. Teens who received MCV for the first time at age 13 through 15 years will need a one-time booster dose between the ages of 16 and 18 years. If your teenager missed getting the vaccine altogether, ask their health care provider about getting it now, especially if your teenager is about to move into a college dorm or military barracks.

4 Everyone 6 months of age and older—including preteens and teens—should get a flu vaccine every year. Children under the age of 9 years may require more than one dose. Talk to your child’s health care provider to find out if they need more than one dose.

5 Pneumococcal Conjugate Vaccine (PCV13) and Pneumococcal Polysaccharide Vaccine (PPSV23) are recommended for some children 6 through 18 years old with certain medical conditions that place them at high risk. Talk to your healthcare provider about pneumococcal vaccines and what factors may place your child at high risk for pneumococcal disease.

6 Hepatitis A vaccination is recommended for older children with certain medical conditions that place them at high risk. HepA vaccine is licensed, safe, and effective for all children of all ages. Even if your child is not at high risk, you may decide you want your child protected against HepA. Talk to your healthcare provider about HepA vaccine and what factors may place your child at high risk for HepA.

For more information, call toll-free 1-800-CDC-INFO (1-800-232-4636) or visit [http://www.cdc.gov/vaccines/teens](http://www.cdc.gov/vaccines/teens).
Growth issues (continued):

- The Brain
  - Intellectual, emotional, spiritual
Teenage substance abuse in IA

- In the past month:
  - 18% used alcohol
  - 12% binge drank
  - 6.4% used marijuana
  - 4.6% used other illicit drug
  - 2-4% used nonprescribed pain med
Parental knowledge???

- **Use:**
  - tobacco – 55% one parent knew
  - alcohol – 50%
  - marijuana – 47%

- **Abuse:**
  - alcohol – 27%
  - marijuana – 26%
Key point- drugs/alcohol

- Marijuana, Alcohol and other drugs permanently change the brain of adolescents’ forming brain matter
Tips for discussing alcohol and drugs

- Be personal and respectful
- Be clear and direct
- Remind them of confidentiality – legally protected
- Do it every time
- **CAGE** (validated 16yo and older) – Cut down, Annoyed, Guilt, Eye-opener
Key Point

- Ask every single time
# PHQ-9

## Table 5. PHQ-9 for Adolescents: Screening Instrument for Depression

<table>
<thead>
<tr>
<th>Over the past two weeks, how often have you been bothered by the following problems?</th>
<th>Not at all</th>
<th>Several days</th>
<th>More than one-half of the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Feeling down, depressed, irritable, or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Trouble falling or staying asleep, or sleeping too much</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Feeling tired or having little energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Poor appetite, weight loss, or overeating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Feeling bad about yourself, that you are a failure, or have let yourself or your family down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Trouble concentrating on things such as schoolwork, reading, or watching television</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Moving or speaking so slowly that others could have noticed; or the opposite, being so fidgety or restless that you have been moving around a lot more than usual</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead, or of hurting yourself in some way</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total: _____ + _____ + _____**

**NOTE:** A total score of ≥ 5 suggests mild major depression, ≥ 10 suggests moderate major depression, and ≥ 15 suggests severe major depression. Any positive response to question 9 warrants follow-up.

*PHQ = Patient Health Questionnaire.*

Key Point- if questionnaire suggests mental health concerns

- Use phq-9 if you can address it- if not set up followup to do this.
- ADDRESS IT! You can make a difference.
Kelly,
Thank you for the advice but I would rather do it through you, and ill be 18 next month so if they find out then I will be an adult. Is there anyway I could get a prescription before Sunday?
Thanks and happy holidays!
Sarah
Sent from Yahoo! Mail on Android

From: Skelly, Kelly <kelly-skelly@uiowa.edu>;
To: Ann Smith
Best solution is to go to planned parenthood clinic where they can do it all without any records in EPIC and without going through your insurance. It is illegal for your mother to look at records related to this, but I am told that it somehow seems like it happens. I would of course be happy to do it, but the safest way to do it completely anonymously is through planned parenthood here in Iowa City. Let me know if I can help you!
ks

From: Ann Smith
Sent: Monday, December 05, 2011 7:02 PM
To: Skelly, Kelly
Subject:

Hi Kelly,
I was wondering if you could still write a prescription of birth control without my mother finding out! Let me know!
Thanks,
Ann Smith
Sent from Yahoo! Mail on Android
Iowa Law – Treatment without Parental Consent

- STI or infection: Minor shall have legal capacity to consent to medical care and service (139A.35).
- Family Planning/STI-AIDS: Minor may apply for voluntary treatment, contraceptive services, screening or treatment of AIDS and other STDs. Shall not be disclosed except for statistical purposes.
War sequelae for 18-25 year olds:

- Historical: Over 70% of Vietnam vets have had drug and/or alcohol problems at some time in the last 30 years.
- Difficult re-adjusting to society/boring
- TBI (Traumatic Brain Injury)
- Risk of PTSD higher for the young
  - VA studies: Rates of PTSD approaching 30% for “exposed” 18-22 year olds (<20% for those older)