ACHA Benchmarking Committee

Measuring the Best Practices in College Health

May 31, 2012
Session Goals

• Discuss data collected from recent ACHA benchmarking surveys- 2011 Clinical Benchmarking Review

• Describe how member institutions have used clinical benchmarking surveys to improve care

• Identify specific clinical benchmarks and a best practice institution in that benchmark and how they achieved that level of care.
Presenters

• None of the presenters in today’s talk have any relationships with commercial entities to disclose.
Agenda for Today’s Session

• Review of the Benchmarking Committee Group and Future Projects
• Comparison of 2010-11 data compared to National Standards
• Best Practices-
  – NYU- Carlo Ciotoli- Screening for Depression
  – UC Irvine- Christina Fingal- Screening for Chlamydia
  – Loyola Univ-Chicago- Joan Holden- Ottawa Ankle Rules and Pharyngitis
  – ASU- Dorothy Trimmer- Asthma Care
• Questions for the Panel on Best Practices
ACHA Benchmarking Committee Report

- Selected recommendations made to the board in our report
  - Need more representation from the various committees and sections
  - Bring on a survey design expert
  - Tie the results of the various surveys (especially clinical benchmarking/NCHA/Patient Satisfaction) to programming decisions at national meetings
  - Improve the technology for surveys to make them more user friendly
  - Put more results on the website for members to review results especially if they are participants in the studies.
  - Find ways to link results of surveys - ie schools that have more sq ft/eligible student or have higher salaries have better data on NCHA/patient satisfaction/clinical benchmarking
  - Work with external partners to make survey collection easier EHR vendors and more relevant to needs of health centers AAAHHC
## ACHA Benchmarking Committee Surveys

<table>
<thead>
<tr>
<th>Survey Name</th>
<th>Frequency</th>
<th>Last Completed</th>
<th>Next Scheduled</th>
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<tbody>
<tr>
<td>Facilities</td>
<td>Every 5 yrs</td>
<td>2008</td>
<td>2013</td>
</tr>
<tr>
<td>Utilization</td>
<td>Every 3 yrs</td>
<td>2010</td>
<td>2013</td>
</tr>
<tr>
<td>Staffing/Salary</td>
<td>Every 5 yrs</td>
<td>2010</td>
<td>2015</td>
</tr>
<tr>
<td>Learning Outcomes</td>
<td></td>
<td>2011</td>
<td>*Health Promotions</td>
</tr>
<tr>
<td>Patient Satisfaction</td>
<td>Ongoing</td>
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ACHA Benchmarking Committee Surveys (cont.)

• Clinical Benchmarking
  – First Pilot- 2009-10
  – Second Pilot- 2010-11
  – Third and Final Pilot- 2012 Post Meeting (please sign up to participate)

• Goals
  – Identify Best Practices for sharing at meetings
  – Identify opportunities for learning for members based on performance
  – Compare ACHA member organizations versus national standards.
Review of Clinical Benchmarking Pilot #2

60%
Review of Clinical Benchmarking Pilot #2

43%
Review of Clinical Benchmarking Pilot #2

59%
Review of Clinical Benchmarking Pilot #2

16%
Review of Clinical Benchmarking Pilot #2

85%
Review of Clinical Benchmarking Pilot #2

38%
Review of Clinical Benchmarking Pilot #2

84%
Review of Clinical Benchmarking Pilot #2

82%
Review of Clinical Benchmarking Pilot #2

[Graph showing compliance with ACOG guidelines for Pap smears, with values ranging from 0.21 to 0.92 for different institutions. The overall compliance is indicated as 64%.]
Comparison of our Benchmarking Results to National HEDIS data

<table>
<thead>
<tr>
<th>Measure</th>
<th>2010 HEDIS National Measure</th>
<th>ACHA Clinical Benchmarking Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronchitis in adults- % adults not prescribed antibiotics</td>
<td>21.3% Comm 23.5 Medicaid</td>
<td>59%</td>
</tr>
<tr>
<td>Chlamydia Screening % sexually active women age 16-24 who were screened for Chlamydia</td>
<td>Ages 16-20 38.1% PPO 54.6% Medicaid</td>
<td>84%</td>
</tr>
<tr>
<td></td>
<td>Ages 21-24 41.9% PPO 62.3% Medicaid</td>
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### Comparison of our Benchmarking Results to National HEDIS data

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<tbody>
<tr>
<td><strong>Asthma Care</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% receiving controller medication for persistent asthma</td>
<td>For 12-50 years olds 91.8% Comm 85.8% Medicaid</td>
<td>85%</td>
</tr>
<tr>
<td><strong>PAP Smears</strong></td>
<td></td>
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<tr>
<td>HEDIS % of women 21-64 who had at least one PAP smear in the last 3 years</td>
<td>74.5% PPO 67.2% Medicaid</td>
<td>64%</td>
</tr>
<tr>
<td>ACHA % who followed most recent ACOG guidelines</td>
<td></td>
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Comparison of our Benchmarking Results to National HEDIS data

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<tr>
<td>Ottawa Ankle Rules</td>
<td>NA</td>
<td>80%</td>
</tr>
<tr>
<td>% correctly ordering films for ankle injuries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharyngitis**</td>
<td>76.6%</td>
<td>43.3%</td>
</tr>
<tr>
<td>HEDIS % getting antibiotics after having a Rapid Strep Test performed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACHA- % not testing or prescribing for 0-1 Centor criteria (Centor-ACP-IDSA Guidelines)</td>
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### Comparison of our Benchmarking Results to National HEDIS data

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<th>Measure</th>
<th>2010 HEDIS National Measure PPO/Medicaid</th>
<th>ACHA Clinical Benchmarking Avg</th>
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<tr>
<td>Smoking Cessation** - ACHA- Screening and Treatment/Advice given for those who desire it.</td>
<td>Advise to quit 71.7/73.6%</td>
<td>82%</td>
</tr>
<tr>
<td>HEDIS- three parts advising patients to quit, prescribing medications, advising strategies for quitting</td>
<td>Medication 47.2/42.7%</td>
<td></td>
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<tr>
<td></td>
<td>Strategies 39/38.5%</td>
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</table>
Opportunities

• **Obesity**- HEDIS data- calculation of BMI in previous year- 40.7-42.2 percent Not currently part of the ACHA clinical benchmarking.

• **Management of Major Depression**- HEDIS data just looks at prescribing of anti-depressants for 12 weeks and then 6 months to avoid relapse. ACHA data looked at response based on standard measurements- PHQ-9. 2010-11 ACHA data showed we were at 16% appropriately treated or referred.

• **Flu shots**- During H1N1 only got to 38% of eligible patients either got their flu shot or were offered and declined.
Best Practices-Screening for Depression

Carlo Ciotoli - NYU
Screening for Depression in Primary Care

Carlo Ciotoli, M.D., M.P.A
Assistant Vice President for Student Health & Executive Director of NYU Student Health Center
Questions to Consider

- What percentage of students seen at your center with depression are identified and treated?
- What percentage of students with depression receive evidence-based treatment?
- What percentage of students with depression achieve remission within 3 months?
- What percentage of students with depression drop out of school for a semester or permanently?
- Does your student health system have guidelines for treating patients with depression that providers are expected to follow?
US Preventive Services Task Force Recommendations

- The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up. Grade: B recommendation.
“Trying harder will not work. Changing systems of care will.”

Don Berwick
The Institute for Healthcare Improvement

NCDP Objective:
To use a shared learning approach to drive rapid, incremental change along well defined guidelines and goals, using active performance measurement while respecting teams’ cultural strengths and resource limitations.
I. Practice Improvement Teams

Drive Change

- Multidisciplinary “champion” team led by a senior leader
  - Blend of respected leaders and early adopter health, medical and counseling professionals
  - Set priorities, identify and overcome barriers, develop pilot testing

- Team trains their respective peers in new strategies, pilot test and spread successes

- Teams are included in the change process
  - Feedback from data collected may facilitate buy-in
II. Effective System Change is INCREMENTAL

- **Act**
  - What changes are to be made?
  - Next cycle?

- **Plan**
  - Objective
  - Questions and predictions (why)
  - Plan to carry out the cycle (who, what, where, when)

- **Study**
  - Analysis of the data
  - Compare data to predictions
  - Summarize what was learned

- **Do**
  - Carry out the plan
  - Document problems and unexpected observations

- Led by a senior leader
- Review results promptly
Why Test?

- Increase the belief that the change will result in improvement
- Predict how much improvement can be expected from the change
- Learn how to adapt the change to conditions in the local environment
- Evaluate costs and side-effects of the change
- Minimize resistance upon implementation
“My next big project is brakes.”
NCDP: 30 Partnering Institutions Since 2006

1. Baruch College*
2. Bowling Green State University
3. Case Western Reserve University*
4. Colorado State University
5. Columbia University
6. Cornell University*
7. Evergreen State College
8. Finger Lakes CC
9. Hunter College/CUNY*
10. Louisiana State University
11. Michigan State University
12. University of Missouri - Columbia
13. The New School
14. Northeastern University*
15. NYU*
16. Penn State - Altoona
17. Princeton University*
18. Rensselaer Polytechnic Institute
19. Rio Hondo College
20. Sarah Lawrence College
21. School of the Art Institute of Chicago
22. St. Lawrence University*
23. Skidmore College
24. Texas Christian University
25. Tufts University
26. University of Arizona
27. University of California, Los Angeles
28. University of Nevada, Las Vegas
29. Wagner College
30. West Valley College

NYUStudentHealthCenter
# PHQ-9

Over the last 2 weeks, how often have you been bothered by the following problems?

<table>
<thead>
<tr>
<th></th>
<th>Not At All (0)</th>
<th>Several days (1)</th>
<th>More than half the days (2)</th>
<th>Nearly every day (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>2. Feeling down, depressed, or hopeless</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>3. Trouble falling or staying asleep, or sleeping too much</td>
<td>□</td>
<td>□</td>
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<td>4. Feeling tired or having little energy</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>5. Poor appetite or overeating</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>6. Feeling bad about yourself - or that you are a failure or have let yourself or your family down</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>7. Trouble concentrating on things, such as reading the newspaper or watching television</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td>8. Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead, or of hurting yourself in some way</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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Subtotals (add columns)

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Total Score

If you checked off any problems, how difficult have these problems made it for you to do your work, study, go to class or get along with other people?

_ Not difficult at all (0) _ Somewhat difficult (1) _ Very difficult (2) _ Extremely difficult (3)

NYU Student Health Center
Implementation Strategies
What is Your Vision for Integrated Depression Care in Your Health Center?

- Which patients will be screened for depression?
- How will the screening be done?
  - When?
  - By who?
  - What instrument?
  - Where will results of screen be recorded?
- What will be the plan for follow-up of patients after depression screening?
Administration of PHQ

- **Mode**
  - Interview
  - Self-administered
    - Paper
    - Computerized
    - Telephone

- **Context**
  - What will happen to results of PHQ? (confidentiality)
  - What does the patient expect the treatment plan will be based on what they report?
PHQ 2 Question Screen

- Screen with first 2 questions in PHQ
- May use a “yes” and “no” format
  - If student answers yes to either question considered a positive result
  - Sensitivity=83% and specificity=93% for major depression as assessed by mental health professional with structured interview
  - Positive predictive value = 38%
- Will save time in screening but add more time for assessment
- Follow up of positive results will include full PHQ9 and an assessment by clinician
PHQ-2

During the past two weeks, have you been bothered by:

Little interest or pleasure in doing things?
☐ No  ☐ Yes

Feeling down, depressed or hopeless?
☐ No  ☐ Yes
Workflow for Depression Screening at NYU

- PHQ-2 done as part of more extensive intake at almost ALL Primary Care and Women’s health visits
- If PHQ-2 positive full PHQ-9 done
- If result meets registry criteria, “check-box” checked
- Appropriate clinical intervention undertaken
- Care manager receives weekly report of eligible patients for entry into registry
<table>
<thead>
<tr>
<th>PHQ-9 Score*</th>
<th>Level of Risk</th>
<th>Registry Entry **</th>
<th>Self-Management</th>
<th>Medication</th>
<th>Counseling</th>
<th>Triage level ***</th>
<th>Recheck visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>Minimal; No Further Action</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No referral needed</td>
<td>No</td>
</tr>
<tr>
<td>5-10</td>
<td>Mild Symptoms; Watchful Waiting</td>
<td>No</td>
<td>Consider</td>
<td>No</td>
<td>Consider</td>
<td>Consider referral to CBH with student input</td>
<td>Consider repeat PHQ-9 in 1-4 weeks</td>
</tr>
<tr>
<td>11-14</td>
<td>Moderate Symptoms; Develop Treatment Plan</td>
<td>Yes</td>
<td>Yes</td>
<td>Consider medication</td>
<td>Strongly Consider</td>
<td>Offer Referral (can schedule with Care Manager or direct them to CBH)</td>
<td>Recheck 1-4 weeks</td>
</tr>
<tr>
<td>15-19</td>
<td>At Risk; Immediate Initiation Of Treatment</td>
<td>Yes</td>
<td>Yes</td>
<td>Strongly consider</td>
<td>YES</td>
<td>Same day treatment initiation: ▪ Care Manager or ▪ Wellness or ▪ Primary Care (if no suicidal ideation)</td>
<td>Recheck as clinically indicated within 2 weeks</td>
</tr>
<tr>
<td>20+</td>
<td>High Risk; Immediate Initiation Of Treatment</td>
<td>Yes</td>
<td>Yes</td>
<td>Strongly consider with psychiatry input</td>
<td>YES</td>
<td>Same day treatment initiation with mental health specialty involvement ▪ Care Manager ▪ Wellness</td>
<td>Recheck as clinically indicated within 1 week</td>
</tr>
</tbody>
</table>

*ANY SCORE OF >=1 ON 9TH ITEM (SUICIDAL IDEATION) REQUIRES FURTHER ASSESSMENT IMMEDIATELY

**Exclusion: Students to be excluded from the depression registry include:
Those with any psychotic or bipolar disorder or PRIMARY alcohol and/or substance use disorder or PRIMARY eating disorder

To Refer to Counseling Center: Call (212) 998-4780 to Schedule Phone Triage
To Refer to Care Manager: Call Joanna Nathan (212) 443-1135 or cell phone (917) 453-7349.
To Refer to Wellness Exchange: (212) 443-9999
Depression Screening Rate in Primary Care

- 2004: 0% (no systematic screening in place)
- 2011: 98% (19,820 screened of 20,302 unique students seen)

Reported as a percentage of unique students seen in primary care who had a PHQ-2 depression screen performed.

NYU Student Health Center
Referral and Initial Engagement with Mental Health Services

Reported as percentage of students with a PHQ-9 score $\geq 15$ (moderate depression and above) who were referred to, and seen by, a mental health specialist within one month of the PHQ-9.

- **2006** 57% (20 of 35 students)
- **2011** 73% (84/115 students)
Contact

Carlo Ciotoli

NYU Student Health Center
726 Broadway
NY, NY 10003

cc47@nyu.edu
Best Practices-Screening for Chlamydia

Christina Fingal- University of California-Irvine
Chlamydia Surveillance in Sexually Active Women

2011-2012

Christina M. Fingal D.O.
University of California Irvine Student Health Center
Why is Chlamydia Screening Important?

- Untreated Chlamydia can ultimately cause infertility, ectopic pregnancy, chronic pelvic pain and can increase susceptibility to HIV infection
- Majority of Chlamydia infections cause no acute symptoms
- Screening can reduce the incidence of PID by more than 50%, and reduces transmission
Incidence and Cost

• Estimated 3 million new cases in U.S. annually
• Most frequently reported disease in U.S.
• Estimated annual incidence of selected STDs:
  – Trichomoniasis — 7.4 million
  – Human Papillomavirus (HPV) — 6.2 million
  – Herpes Simplex Virus (HSV) — 1.6 million
  – Gonorrhea — 718,000
  – Syphilis — 37,000
• Direct and indirect annual costs total approximately $2.4 Billion

Source: CDC Chlamydia Curriculum
Chlamydia, Gonorrhea, and Primary & Secondary Syphilis
California Rates, 1990–2010

Chlamydia: 400.0 (N=155,300)
Gonorrhea: 69.1 (N=26,840)
P&S Syphilis: 5.3 (N=2,059)
Screening Recommendations: Non-pregnant Women

• Sexually active women age 25 years and under should be screened annually
• Women >25 years old should be screened if risk factors are present
• Repeat testing of all women 3-4 months after treatment for *C. trachomatis* infection, especially adolescents
• Repeat testing of all women treated for *C. trachomatis* when they next present for care within 12 months

Source: CDC Chlamydia Curriculum
Barriers to Screening

• Busy practitioners may skip Chlamydia screening in asymptomatic patients
• Practitioner-administered sexual history
  – Time consuming
  – Socially uncomfortable
• Patients not wanting to have a pelvic exam
• Adding a pelvic exam to a short visit is burdensome to practitioner’s schedule
Why Does UCI Student Health Have High Screening Rate?

• Systems are key to reliable performance

• UCI’s systems include:
  – Pt must fill out Women’s Health History form for all GYN care including UTIs.
  – Chlamydia testing materials, including printed labels, set up for every pelvic exam tray
  – Practitioners must ‘opt out’ of testing
  – Option for urine testing, vaginal swab (NAAT)*

    • Urine collection different than collection for C&S

*Schlachter J et al. Vaginal swabs are the specimens of choice when screening for Chlamydia trachomatis and Neisseria gonorrhoeae. Sex Transm Dis 2005; 32:725
Women’s Health History Identifies Risk Factors

- Youth (adolescents and young adults)
- History of prior Chlamydia infection
- Multiple sex partners, recent new sex partner, or a sex partner has other sex partners
- Inconsistent/non-use of barrier contraceptives
- History of prior STIs
- Usage of birth control pills

Source: CDC Chlamydia Curriculum
Women’s Health History Form

- Patient fills it out herself prior to exam
- Determines risk for Chlamydia/STI screening
- Patients complete at any visit for:
  - UTI
  - Vaginitis
  - Menstrual complaints
  - Contraception
  - Well-woman exam
THE 5 P’S OF TAKING A SEXUAL HISTORY (1)

• Partners
  – “Do you have sex with men, women, or both”
  – “In the past 2 months, how many partners have you had sex with?”
  – “In the past 12 months, how many partners have you had sex with?”

• Prevention of Pregnancy
  – “Are you or your partner trying to get pregnant”
  – “If no, what are you doing to prevent pregnancy?”

• Protection from STIs
  – “What do you do to protect yourself from STIs (sexually transmitted infections) or HIV?”

Source: CDC Chlamydia Curriculum
THE 5 P’S OF TAKING A SEXUAL HISTORY (2)

• Practices
  – “To understand your STI risk, I need to understand the kind of sex you had recently.”
  – “Have you had vaginal sex?”
  – “If yes, do you use condoms?” never sometimes always
  – “Have you had anal sex?”
  – “If yes, do you use condoms?” never sometimes always
  – For condom answers, if never, “Why don’t you use condoms?”
  – “If sometimes, in what situations/with whom, do you not use condoms?”
  – “Have you had oral sex?”

• Past history of STIs
  – “Have you ever had a sexually transmitted infection?”
    • Name of infection(s):

Source: CDC Chlamydia Curriculum
UCI SHC Set Up for Pelvic Exam
Treatment of Uncomplicated Genital Chlamydial Infections

• **CDC-recommended regimens**
  – Azithromycin 1 g orally in a single dose, OR
  – Doxycycline 100 mg orally twice daily for 7 days

• **Alternative regimens**
  – Erythromycin base 500 mg orally 4 times a day for 7 days, OR
  – Erythromycin ethylsuccinate 800 mg orally 4 times a day for 7 days, OR
  – Ofloxacin 300 mg orally twice a day for 7 days, OR
  – Levofloxacin 500 mg orally once a day for 7 days

Source: CDC Chlamydia Curriculum
Best Practices for Partner Management

• BYOP-”Bring Your Own Partner”
• PDPT- Patient Delivered Prescription Treatment (with written materials)
• Health Dept. Partner Notification
• Counseling patient to inform partner(s)
• Internet Notification of Partners
  — (www.InSPOT.org)
Repeat Testing after Treatment

• Pregnant women
  – Repeat testing, preferably by NAAT, 3 weeks after completion of recommended therapy

• Non-pregnant women
  – Test of cure not recommended unless compliance is in question, symptoms persist, or re-infection is suspected
  – Repeat testing recommended 3-4 months after treatment, especially adolescents due to high prevalence of repeated infection
  – Screen at next health care visit

Source: CDC Chlamydia Curriculum
Best Practices- Ottawa Ankle Rules and Pharyngitis Treatment

Joan Holden- Loyola University-Chicago
Loyola University Chicago
Wellness Center
Mission Statement

The Wellness Center provides high quality interdisciplinary medical, mental health and health promotion services that enable our diverse student population to more fully participate and succeed in the college experience. By enhancing health and wellness, within the context of a Jesuit Catholic institution, each student is empowered to take responsibility for self care by making informed lifestyle choices that contribute to their own success and to the well-being of the community.
Ottawa Ankle and Foot Rules

- Used to identify patients who are most likely to have common fractures of the ankle or foot
- Reported sensitivity to exclude fracture ranges from 96.4%-99%
- Validated in a variety of settings
- Decrease amount of imaging, waiting times and health care costs
- Cost-benefit studies indicate decreased ordering of films 30-40%
ACHA Clinical Benchmarking
Compliance Percentages

Ottawa Ankle  92%
Pharyngitis    84%
Compliance requirements

• “Non-traumatic” Foot Injuries are excluded
• Documentation of the person’s ability to walk either immediately AND at the health center
• Documentation of physical exam with point tenderness in the following locations
When to order an x-ray?

• Yes when...
  • Point tenderness in any of the areas marked or
  • Inability to bear weight for at least four steps either immediately after injury and at the health center

• No when...
  • No point tenderness in any of the areas marked
  • Ability to bear weight for at least four steps both immediately after and in the health center
Pharyngitis

- Majority of cases are caused by viruses
- Bacterial organisms account for 20%
- Group A strep is the causal agent in approximately 10% of adult cases of pharyngitis
- Fusobacterium necrophorum associated with Lemierre Syndrome
- Unilateral swelling or worsening symptoms should be aggressively treated
Centor Criteria

- Presence of Fever
- Presence of Tender Cervical Adenopathy
- Presence of Tonsillar Exudates
- Absence of Cough

Centor RM; Witherspoon JM; Dalton HP; Brody CE; Link K. The diagnosis of strep throat in adults in the emergency room. Medical Decision Making 1981; 1(3): 239-46.
How to use the Centor Criteria

- When all 4 are present, the probability of strep increases

- Treat all with score of 3-4 OR treat all with score of 4
- Perform rapid strep on those with 2-3
- No treatment and no testing with 0-1

- Infectious Disease Society of America recommends all patients be tested with rapid strep before treating.
Compliance

• Each Chart should have a Centor Score either on the chart or calculated from the history and physical exam

• Antibiotics are NOT prescribed AND a rapid strep is NOT ordered for those with a Centor scores of 0-1
Medical Profile

• 3 Full Time Nurse Practitioners
• 4 Part Time Physicians
• 4 Registered Nurses
• 1 Medical Assistant
• 1 Laboratory Technician
• 1 Dietician
Quality Improvement
Chart Reviews

• Done on a monthly basis
• Group Format
• Random Selection
• Each Practitioner Selected
Clinical Decision Making at Loyola

Primarily Nurse Practitioners that must adhere to practice guidelines

No billing of insurance enables ease of return visits

Frequent collaboration amongst practitioners

Jesuit Education reflects a social justice perspective that emphasizes awareness of the ‘whole person’, understanding of society and culture and appropriate use of resources.
Best Practices- Asthma Care

Dorothy Trimmer- Arizona State University
Asthma at ASU

Dorothy Trimmer FNP-BC
May 31, 2012
Overview

• Quick Overview of Asthma
• Overview of National Guidelines and ACHA Clinical Benchmarking
• How did ASU treat Asthma?
• What changes did ASU make to treat asthma?
• What were the results of our changes?
Consider Asthma when patient history includes episodic:

- Wheezing
- Coughing
- Difficulty breathing
- Tightness in chest
- Breathing worsens at night
- Worsens with activity
- Worsens with allergies
- Worsens with a viral infection

Review of Asthma

- Diagnosis is clinical based on presence of symptoms and should be based upon:
  - Reversibility:
    - Baseline Forced Expiratory Volume (FEV1) or peak flow
    - Administer Short Acting $\beta_2$ Agonist (SABA)
      - e.g. albuterol
    - If FEV1 improves 10% or more after SABA
    - Improved symptoms
  - Alternative diagnoses are excluded

# Classification of Asthma Severity ≥ 12 years of age

<table>
<thead>
<tr>
<th>Components of Severity</th>
<th>Intermittent</th>
<th>Persistent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mild</td>
</tr>
<tr>
<td><strong>Symptoms</strong></td>
<td>≤2 days/week</td>
<td>&gt;2 days/week but not daily</td>
</tr>
<tr>
<td><strong>Nighttime awakenings</strong></td>
<td>≤2x/month</td>
<td>3-4x /month</td>
</tr>
<tr>
<td><strong>Short acting β2 -agonist use for symptom control (not prevention of EIB)</strong></td>
<td>≤2 days/week</td>
<td>&gt;2 days/week but not daily</td>
</tr>
<tr>
<td><strong>Interference with normal activity</strong></td>
<td>None</td>
<td>Minor limitations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medications:</th>
<th>Intermittent Therapy</th>
<th>Daily Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mild Intermittent</td>
<td>Mild Persistent</td>
</tr>
<tr>
<td>PRN β-Agonists</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Low Dose Inhaled Corticosteroid</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Moderate/High Dose Inhaled Corticosteroid</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Long Acting β-Agonists</td>
<td>✓</td>
<td>✓ (Alternative with steroid)</td>
</tr>
<tr>
<td>Leukotriene Antagonists</td>
<td>✓</td>
<td>✓ (Alternative)</td>
</tr>
<tr>
<td>Oral Systemic Steroids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Omalizumab (anti-IGE)</td>
<td></td>
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</tr>
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</table>
Evidenced-Based Approach in Asthma Care

Defining the Ratings of Evidence

• **Category A:**
  - Substantial number of randomized controlled trials (RCT’s)
  - Each RCT has a significant number of participants and a definitive pattern for conclusions

• **Category B:**
  - Some RCTs
  - Each RCT may not have enough participants or data for definitive conclusions

Evidenced-Based Approach in Asthma Care

• **Teach Asthma Self Management and Skills to Promote Asthma Control (Evidence A)**
  – Begin at Diagnosis and throughout follow up care (Evidence B)
  – Involve all members of the health care team (Evidence B)

• **Self Monitoring by symptoms or peak flow (Evidence A)**
  – Goal setting for control with Provider (Evidence B)
  – Written action plan for daily management of persistent and or worsening symptoms (Evidence B)
  – Regular Assessment by a consistent clinician (Evidence B)
ASU Health Services

• In the Fall of 2007 ASU Health Service began to study Asthma patients with the assistance of its new EMR (ICD-9 code 493)

The Original Criteria:
• Peak flows for patients with asthma related symptoms.
• Asthma documented in patient EMR.
• Asthma education documented in patient plan.
• Steroid inhaler given if a monthly rescue inhaler was used by patient.
Initial Quality Improvement Results

• The criteria were combined and reported as a total percentage:
  
  Fall 2007 45%*
  Spring 2008 77%*
  Fall 2008 65%*

*All values fell below our benchmark of ≥ 90%
Identifying the Problems

• In Fall 2008, 65% of the charts met NAEPP guidelines, so where were our deficiencies?
  – 5% of patient’s peak flows were not documented by the nursing staff
  – 5% of nursing / provider did not document asthma as a chronic condition in the patient’s EMR
  – 25% of providers did not document asthma education in the patient’s EMR
Actions Taken: Education


• The review was readily made available for reference; in digital and paper form.
Actions Taken: Established New Criteria

- Peak Flow at all visits, to establish baseline
- Asthma documented in patient EMR as a chronic medical condition
- Asthma education or Action Plan documented in patient plan
- Steroid inhaler or alternative given for Mild, Moderate, Severe persistent asthma.
- Severity of the Asthma was noted in the EMR
  - Intermittent, Persistent Asthma (Mild, Moderate, Severe)
Actions Taken: New Nursing Staff Procedure

• Peak flow tests were administered to all patients who had the following symptoms:
  – Cough
  – Shortness of breath
  – History of Asthma
  – Chest pains
  – Pre- and post- SVN
Guide for Nurses

Chief Complaint: Cough

Peak Flow:
Pre-SVN: ______________
Post-SVN: ______________

- Implemented by nursing staff for prescreening check-in
Oversight of Nursing Staff

• Upon discharge of the patient, the forms were delivered to the lead clinician for review
• A staff member calculated any deficiencies and nursing staff were individually reviewed by the leading clinician and/or the Head Nurse
• Staff education/retraining was implemented at an individual level from Fall 2010 until Spring 2011.
Improvements Made by Clinicians

• Clinicians were trained to document asthma as a chronic medical condition, as well as the severity, under the patient’s past medical history in the EMR

• Documents and demonstrations were given to all clinicians outlining the proper procedure for the EMR

• A new “Asthma Action Plan” was provided by the clinicians to the patients
Summary of The New Criteria

• Peak Flow at all visits, to establish baseline

• Asthma documented in patient EMR as a chronic medical condition

• Asthma education or Action Plan documented in patient plan

• Steroid inhaler or alternative given for Mild, Moderate, Severe persistent asthma.

• Severity of the Asthma was noted in the EMR
  – Intermittent, Persistent Asthma (Mild, Moderate, Severe)
Action Plan implemented by providers and combined with patient plan.
Staff Evaluations

- Beginning in 2009, “Campus Health Service Annual Performance Evaluation” for the medical staff included a quality performance which reviewed 5 Pharyngitis and 5 asthma charts with a percentage of compliance.

- The medical staff met semi-annually for peer reviews, a worksheet specifically for asthma care was included in the reviews and returned to the clinicians.

- From our Quality Improvement chart reviews, individual providers were counseled on asthma deficiencies in the patient EMR’s.
Quality Improvement
Asthma Study – Chart Review

<table>
<thead>
<tr>
<th>RENDERING PROVIDER</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>DATE OF VISIT</td>
<td></td>
</tr>
<tr>
<td>ENC NUMBER</td>
<td></td>
</tr>
<tr>
<td>E&amp;M CODE</td>
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</table>

Review Date: ____________________________

Reviewers: Harold Cohen, MD
Dorothy Trimmer, FNP

_______ Peak flow obtained on every visit with patient with history of asthma.

_______ Asthma placed in chronic condition field in EMR.

_______ Severity of Asthma documented in past medical history section of EMR.

_______ Steroid inhalers or alternatives prescribed for class 2 or greater categories of Asthma.

_______ Asthma education sheet given to patient or Asthma Action Plan given.
# Results of All Changes Made

## Major Findings:

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<tr>
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</thead>
<tbody>
<tr>
<td>Peak Flow was obtained</td>
<td>89% Not Met</td>
<td>92% Met</td>
<td>74% Not Met</td>
<td>88% Not Met</td>
<td>96% Met</td>
</tr>
<tr>
<td>Asthma was noted on chronic medical problems</td>
<td>84% Not Met</td>
<td>81% Not Met</td>
<td>88% Not Met</td>
<td>84% Not Met</td>
<td>100% Met</td>
</tr>
<tr>
<td>Severity of Asthma Noted</td>
<td>X</td>
<td>X</td>
<td>64% Not Met</td>
<td>62% Not Met</td>
<td>90% Met</td>
</tr>
<tr>
<td>For Persistent Categories of Asthma Steroids or Alternatives Prescribed</td>
<td>98% Met</td>
<td>98% Met</td>
<td>100% Met</td>
<td>90% Met</td>
<td>100% Met</td>
</tr>
<tr>
<td>Asthma Education or Action Plan on Chart</td>
<td>64% Not Met</td>
<td>81% Improved but Not Met</td>
<td>72% Not Met</td>
<td>82% Not Met</td>
<td>100% Met</td>
</tr>
<tr>
<td>Threshold 90%</td>
<td>Not Met</td>
<td>Not Met</td>
<td>Not Met</td>
<td>Not Met</td>
<td>Met</td>
</tr>
</tbody>
</table>
Meeting ACHA Benchmarks

Benchmark:

– Diagnosis of Asthma 25 charts
– Persistent (Mild, Moderate, Severe) Asthma 10 of 25 charts

1. Peak Flow at all visits (Evidence A)

2. Controller Medication for persistent asthma
   – Inhaled Steroid or Alternative (Evidence A)
   – *Exceptions: patient refusal of treatment or contra indicators
Keys to Success

- Dedicated lead clinicians: Researchers & Section Chiefs.
- Communication with the Clinicians, nursing staff and new employees.
- Feedback from Peer Review, QI, & evaluations.
- Peak flows at all visits.
- Action Plans and Education plans printable from EMR.
Summary

• ASU was able to meet asthma guidelines by using:
  – Peer Review and Annual Provider Evaluations
  – The use of the patient action plans and asthma education was very instrumental
  – Staff and Patient Education
  – Involving all staff, especially nursing staff performing peak flow measurements.
Thank you!!!

Special thanks to:

• Dr. Allan Markus, Director of ASU Health Services

• Dr. Harold Cohen, Co-Researcher for Asthma Care, Section Chief ACUTE Care ASU Health Services

• James Li, BA Chemistry, for creating the presentation

• The ENTIRE Staff at ASU Health Services
Reference Cited

Flu Vaccination Rates-Radford University

- Thomas Knisely DO of Radford University Student Health Services which produced a 100% compliance with either giving a flu vaccine or offering the vaccine and having it refused answered questions regarding how they met that standard and provided a sheet that they utilize in the Carillon Clinic that provides care to the Radford University students.