

Lessons from Advanced Medical Homes: the Sandhills Pediatrics Experience

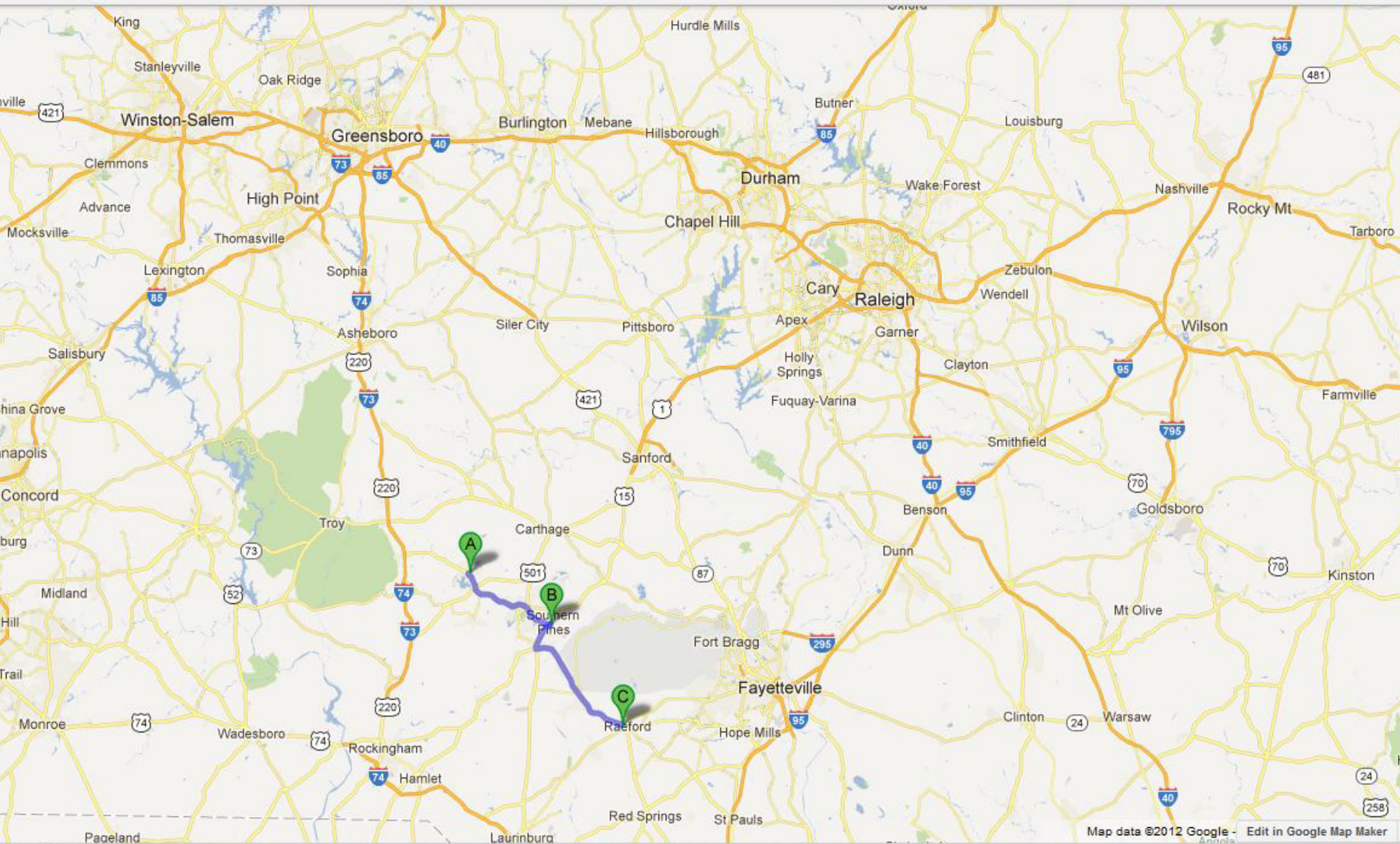
Sixth National Medical Home Summit
Philadelphia- 3/17/2014 08:15

Christoph Diasio MD FAAP
Sandhills Pediatrics Inc
Southern Pines, NC

Background

- Founded 1966, semi-rural NC
- 12 MD FTE & 4 CPNPs
- 55% Medicaid, 40% Private, 5% Cash pay
- Now 3 sites
- 18,100 active patients (9884 flu vax so far)
 - 65,000 office visits in 2013
- NCQA PCMH recognized (level 2)
 - Renewed in 2014
 - BCBS-NC created significant incentive for NCQA recognition
- www.sandhillspeds.com

Ave, Southern Pines, NC 28387, USA



Basic QI

- Don't analyze it to death
- Share widely, and steal shamelessly!
 - No one has a monopoly on a good idea
- More failures=more successes
 - Thomas Edison - "I have not failed. I've just found 10,000 ways that won't work"
 - Plan-Do-Study-Act
 - Rapid small tests of change
 - QI never stops- it is an attitude to address the world

Example 1

SHP originally had no appts with clinicians, just with the practice (pile of charts like an ER)

- Open Access collaborative with NICHQ 10 yrs ago.

- cycle time was 60 minutes for a sick visit and 90 minutes for a check up!

- interventions- appt with clinician, clinician nurse pairing, measured cycle time

- match supply and demand

- cycle time now: sick=25, well=30 (maximize time with care team, not waiting room)

Sustaining gains

- Due to successes, practice is growing rapidly
- Adding docs, adding sites
- How to manage complexity?
 - Call center
 - Schedule the whole practice, not one office
 - Easier to do QA if 5 people make appts instead of 45
 - Allows measurement of abandoned calls, wait time, etc.

Current projects

- Measuring appt demand by time of day
 - (this will build the case for online appt requests)
- Walk in flu vaccine
 - Best flu vaccine strategy so far
- Weight based dose-band for expensive Abx
 - Optimize dispense volume
- Walk in clinic?
 - Continuity is difficult, but competing with Urgent care/ER/NP in a Pharmacy
 - Local SCCN practice is having runaway success with walkin sick and well visits.
 - Reducing ER utilization is a major priority for all payors

Flu vax delivery-innovate! P-D-S-A

- Richest country in the world fails to deliver vaccine to its population (49% of kids got flu vax last season)
- Tried Saturday clinic- only 250 doses
- Add-on flu clinic form
- Drive through Flumist?
- Online appts –Google “flash appts”
- Walk in flu clinic was greatest success!

FLU ADD-ON IMMUNIZATION SHEET

Sandhills Pediatrics, Inc

Main ofc: 195 W Illinois Ave; Southern Pines, NC 28387; 910-692-2444

7 Lakes ofc: 1035 Seven Lakes Drive; Suite A; West End NC 27376; 910-673-1600

Raeford: 313 Teal Drive; Raeford, NC 28376 ; 910-565-1578

TODAY'S DATE: _____

PT. NAME: _____

DOB: _____

FLU SHOT

Nurse: (circle) Reg or PF, Bt. Or St.

Vaccine screening questions:

Injection Site: ____/IM

Lot#:

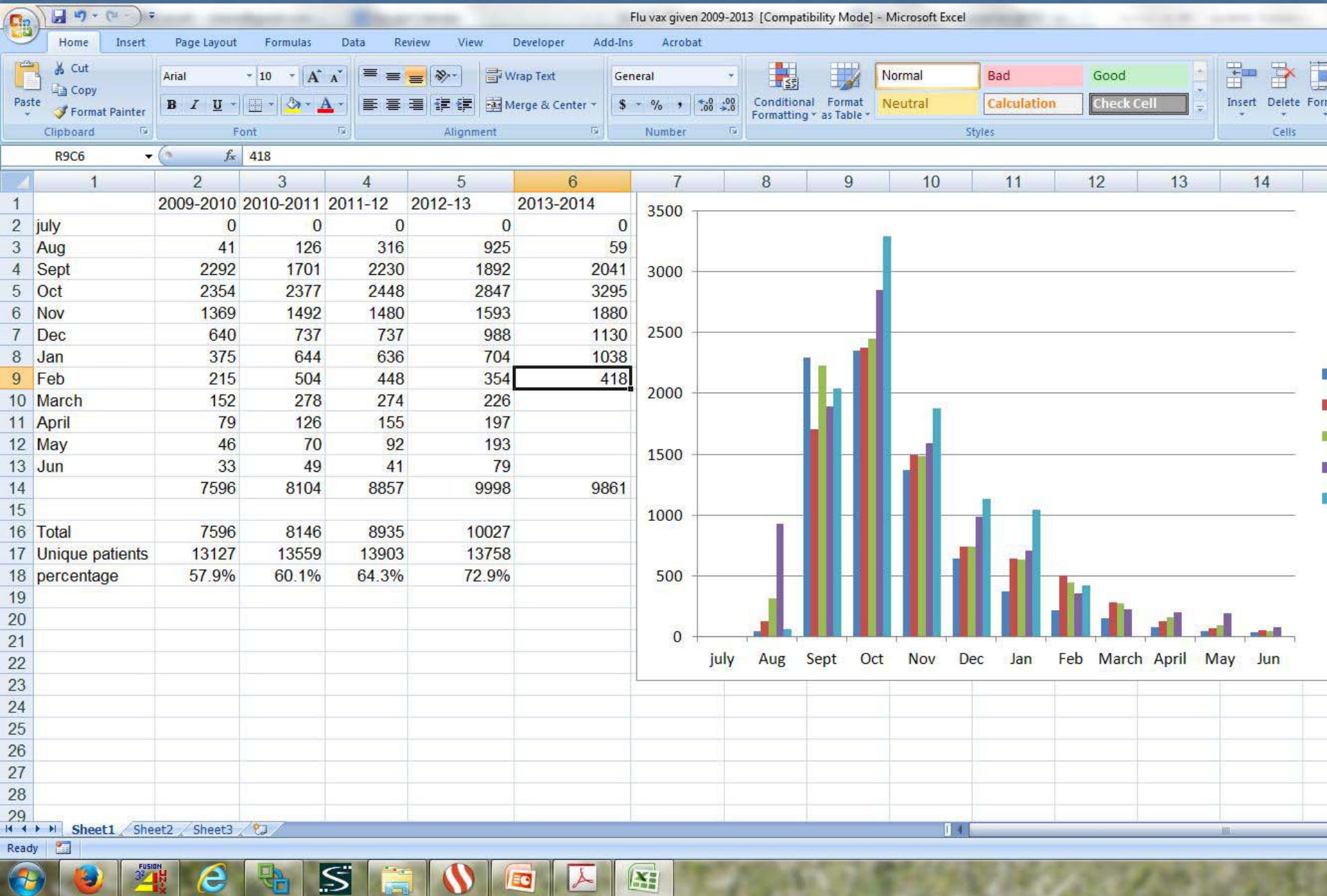
Yes	No	
___	___	sick today
___	___	allergy to food, meds, vaccines
___	___	cancer, leukemia, AIDS, immune deficiency
___	___	seizure or brain problem
___	___	prolonged steroids, radiation therapy
___	___	pregnancy or possible pregnant in next 1 month
___	___	vaccination in last 4 weeks
___	___	blood or IVIG in last 12 months

FLU MIST

Nurse: (circle) Bt. Or St.

Lot #

Yes	No	
___	___	sick today or very stuffy nose?
___	___	allergy to eggs or influenza vaccine?
___	___	serious reaction to Flumist in the past?
___	___	less than 2 yo or older than 49 yo?
___	___	long-term health problem with heart disease, lung disease, asthma,
___	___	kidney disease, metabolic disease (e.g., diabetes), sickle cell disease?



Flu vaccine(and collards) at Street Fair



Constant contact

- Easy email marketing
- Put those MU emails to use!

Sandhills Pediatrics Newsletter

Featured Article

[Youtube video](#)

Mia Hamm, UNC soccer legend, says stay in the game, get protected!

Quick Links

[Fill out Flu Clinic forms ahead of time!](#)

[CDC Flu Info](#)

[Families Fighting Flu](#)

[SHP website](#)

Join Our List

[Join Our Mailing List!](#)

Issue:6

10/15/2012



Dear Christoph,

We have Flu clinic for **ESTABLISHED** patients at all 3 offices! We offer these by or appointment OR as walk-in, nurse-only visit (we realized it takes longer to make the appt by phone or computer than it does to give the vaccine!)

- **Southern Pines:** Monday-Friday 8:15 am-11:30 am, 1:30-4:00pm
- **7 Lakes:** Monday-Friday 8:30am-11:30am, 1:30pm-4:00pm
- **Raeform:** Monday-Friday 8:30am-11:30am, 1:30pm-4:00pm

We are planning to continue flu clinics **every** week until the supply runs out!

In a hurry?

Fill out your flu clinic forms [ONLINE](#) and print at home and bring with you (no data is saved on our website, you have to print them to bring them along)

If you have a regularly scheduled appointment in the next few weeks, it is fine to wait and get the vaccine then.

Who needs the Flu vaccine? EVERYONE > 6mo

Emails : Reports : Click-through Statistics

See which links were the most interesting to your readers by viewing the unique click-throughs. For recent emails, you can click on the linked number to see which contacts clicked on a link. You can also save these contacts as a list.

We'll maintain this data for 90 days from the date of your email.

[< Back](#)
[Printable Version](#)

Email Name: October 2012-Flu vax

Date Sent: 10/15/2012

Email Link	Unique Click-throughs	Click-through Distribution
http://cdc.gov/flu/about/disease/	3	3.5%
http://sandhillspeds.com.edit.officite.com/docs/Flu_sheet_Oct_2012_edits.pdf	67	78.8%
http://www.familiesfightingflu.org	3	3.5%
http://www.sandhillspeds.com	10	11.8%
http://www.youtube.com/watch?v=3aNe03nuipU&feature=player_embedded	2	2.4%
Total Click-throughs	85	100%

[Save as List](#)

“High cost” pediatric drugs

- Budget dust compared to adult medicine
- But still.... Crazy to spend more money for no good reason!
 - Standardized weight-based dosing for Amox/Clav (Augmentin) and Cefdinir (Omnicef)
 - Could do fancy mg/kg auto-dose rounding- but isn't this easier?
 - *lawyers please note: following doses are for illustration only, please verify dosing prior to prescribing!

Patient Drug History ☒ Active ☒ Intolerant ☒ Discontinued ☐ Show Deleted/Cancelled

	Status	Date	Drug	Form	Instructions	Approved By	Notes

☐ No known active medication ☐ Patient has no known drug allergies

Rx History

	Date	Drug	Instructions	Dispense	Refills	State	By

Rx: augmentin ☒ Master ☒ Favorites

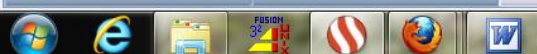
Script Location: Sandhills Pediatrics

AB	Prescribe	Info	S	F	Patient Instructions	Dispense	Units	Refills
CD	A/B Otic, Solution, 1.4-5.4 %		U	M	7-13 pounds- (AKA Omnicel) Take 1/2 tsp PO ONCE a day x 10 days	40	milliliter(s)	0
EF	AeroChamber Plus, Miscellaneous		U	M	14-17 pounds- (AKA Omnicel) Take 3/4 tsp PO ONCE a day x 10 days	60	milliliter(s)	0
GH	AeroChamber Plus Flow VU, Miscellaneous		U	M	18-22 pounds- (AKA Omnicel) Take 1 tsp PO ONCE a day x 10 days	60	milliliter(s)	0
IJ	Albuterol Sulfate, Nebulization Solution, (2.5 MG/3M	g	U	M	23-27 pounds- (AKA Omnicel) Take 1 and 1/4 tsp PO ONCE a day x 10 days	75	milliliter(s)	0
KL	Albuterol Sulfate HFA, Aerosol Solution, 108 (90 Ba	g	U	M	28-32 pounds- (AKA Omnicel) Take 1 and 1/2 tsp PO ONCE a day x 10 days	100	milliliter(s)	0
MN	Amoxicillin, Suspension Reconstituted, 250 MG/5MI	g	U	M	33-37 pounds- (AKA Omnicel) Take 1 and 3/4 tsp PO ONCE a day x 10 days	100	milliliter(s)	0
OP	Amoxicillin, Suspension Reconstituted, 400 MG/5MI	g	U	M	38-42 pounds- (AKA Omnicel) Take 2 tsp PO ONCE a day x 10 days	100	milliliter(s)	0
QR	Amoxicillin, Tablet, 500 MG	g	U	M	greater than 42 LBS, cheaper to use 250/5		unit(s)	0
ST	Amoxicillin-Pot Clavulanate, Suspension Reconstit	g						
UV	Amoxicillin-Pot Clavulanate, Tablet, 875-125 MG	g						
WX	Azithromycin, Suspension Reconstituted, 200 MG/5	g						
Y	Azithromycin, Tablet, 250 MG	g						
Z	Bactrim, Tablet, 400-80 MG	g						
	Bactrim DS, Tablet, 800-160 MG	g						
	Billubin Blanket, Device	g						
	Cefdinir, Capsule, 300 MG	g						
	Cefdinir, Suspension Reconstituted, 125 MG/5ML	g						
	Cefdinir, Suspension Reconstituted, 250 MG/5ML	g						

No current encounter for this patient.

Test Test ☒ All ☐ Messages ☐ Flow Sheet ☒ Rx Desktop ☒ Message Ctr ☐ Scan Plac

PMH	Acute Care	Well Child	PEDS	Hospital	Consults	Old Records	Insurance
Immunization	Growth Charts	Growth Chart	Labs	Imaging	ADHD	ASTHMA	Case MGT



☒ Active ☒ Intolerant ☒ Discontinued ☐ Show Deleted/Cancelled

	Status	Date	Drug	Form	Instructions	Approved By	Notes

No known active medication Patient has no known drug allergies

Date	Drug	Instructions	Dispense	Refills	State	By


Rx: 🔍 ☐ Master ☒ Favorites

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Script Location: Sandhills Pediatrics

AB	Prescribe	Info	S	F	Patient Instructions	Dispense	Units	Refills
CD	A/B Dtic, Solution, 1.4-5.4 %		U	M	11- 18 lbs- (AKA Augmentin) take 1/2 tsp PO twice a day x 10 days	75	milliliter(s)	0
	AeroChamber Plus, Miscellaneous		U	M	19- 25 lbs- (AKA Augmentin) take 3/4 tsp PO twice a day x 10 days	75	milliliter(s)	0
EF	AeroChamber Plus Flow VU, Miscellaneous		U	M	26- 32 lbs- (AKA Augmentin) take 1 tsp PO twice a day x 10 days	125	milliliter(s)	0
GH	AeroChamber Plus w/Mask, Miscellaneous		U	M	33- 39 lbs- (AKA Augmentin) take 1 & 1/4 tsp PO twice a day x 10 days	125	milliliter(s)	0
IJ	Albuterol Sulfate, Nebulization Solution, [2.5 MG/3iv	g	U	M	40- 48 lbs- (AKA Augmentin) take 1 & 1/2 tsp PO twice a day x 10 days (please combine two 75 mL bottles)	150	milliliter(s)	0
KL	Amoxicillin, Suspension Reconstituted, 250 MG/5ML	g	U	M	49- 55 lbs- (AKA Augmentin) take 1 & 3/4 tsp PO twice a day x 10 days	200	milliliter(s)	0
MN	Amoxicillin, Suspension Reconstituted, 400 MG/5ML	g	U	M	56- 62 lbs- (AKA Augmentin) take 2 tsp PO twice a day x 10 days	200	milliliter(s)	0
	Amoxicillin, Tablet, 500 MG	g	U	M	63- 69 lbs- (AKA Augmentin) take 2 & 1/4 tsp PO twice a day x 10 days- (Please combine three 75 mL bottles)	225	milliliter(s)	0
OP	Amoxicillin-Pot Clavulanate, Suspension Reconstituted	g	U	M	70- 77 lbs- (AKA Augmentin) take 2 & 1/2 tsp PO twice a day x 10 days- (Please combine two 125 mL bottles)	250	milliliter(s)	0
QR	Amoxicillin-Pot Clavulanate, Tablet, 875-125 MG	g	U	M	78- 87 lbs- (AKA Augmentin) take 2 & 3/4 tsp PO twice a day x 10 days (please combine 4 of the 75 mL bottles)	275	milliliter(s)	0
ST	Azithromycin, Suspension Reconstituted, 200 MG/5	g						
	Azithromycin, Tablet, 250 MG	g						
UV	Bactrim, Tablet, 400-80 MG							
	Bactrim D5, Tablet, 800-160 MG							
WX	Bilirubin Blanket, Device							
Y	Cefdinir, Capsule, 300 MG	g						
Z	Cefdinir, Suspension Reconstituted, 125 MG/5ML	g						
	Cefdinir, Suspension Reconstituted, 250 MG/5ML	g						

No current encounter for this patient.

PMH	Acute Care	Well Child	PEDS	Hospital	Consults	Old Records	Insurance
Immunization	Growth Charts	 Growth Chart	Labs	Imaging	ADHD	ASTHMA	Case MGT

Post-Partum Depression Screening

- Edinburgh Post-Partum Depression screen
 - Family-centered care
 - Major negative effect on mother-child pair
 - Administered at 2 & 4 mo checkup
- Initial skepticism, now one of favorite QI projects

Edinburgh Postnatal Depression Scale¹ (EPDS)

Name: _____ Address: _____

Your Date of Birth: _____

Baby's Date of Birth: _____ Phone: _____

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:

- ☐ L Yes, all the time
☒ R Yes, most of the time This would mean: "I have felt happy most of the time" during the past week.
☐ C No, not very often Please complete the other questions in the same way.
☐ C No, not at all

In the past 7 days:

- | | |
|---|--|
| 1. I have been able to laugh and see the funny side of things | *6. Things have been getting on top of me |
| <input type="radio"/> As much as I always could | <input type="radio"/> Yes, most of the time I haven't been able to cope at all |
| <input type="radio"/> Not quite so much now | <input type="radio"/> Yes, sometimes I haven't been coping as well as usual |
| <input type="radio"/> Definitely not so much now | <input type="radio"/> No, most of the time I have coped quite well |
| <input type="radio"/> Not at all | <input type="radio"/> No, I have been coping as well as ever |
| 2. I have looked forward with enjoyment to things | *7. I have been so unhappy that I have had difficulty sleeping |
| <input type="radio"/> As much as I ever did | <input type="radio"/> Yes, most of the time |
| <input type="radio"/> Rather less than I used to | <input type="radio"/> Yes, sometimes |
| <input type="radio"/> Definitely less than I used to | <input type="radio"/> Not very often |
| <input type="radio"/> Hardly at all | <input type="radio"/> No, not at all |
| *3. I have blamed myself unnecessarily when things went wrong | *8. I have felt sad or miserable |
| <input type="radio"/> Yes, most of the time | <input type="radio"/> Yes, most of the time |
| <input type="radio"/> Yes, some of the time | <input type="radio"/> Yes, quite often |
| <input type="radio"/> Not very often | <input type="radio"/> Not very often |
| <input type="radio"/> No, never | <input type="radio"/> No, not at all |
| 4. I have been anxious or worried for no good reason | *9. I have been so unhappy that I have been crying |
| <input type="radio"/> No, not at all | <input type="radio"/> Yes, most of the time |
| <input type="radio"/> Hardly ever | <input type="radio"/> Yes, quite often |
| <input type="radio"/> Yes, sometimes | <input type="radio"/> Only occasionally |
| <input type="radio"/> Yes, very often | <input type="radio"/> No, never |
| *5. I have felt scared or panicky for no very good reason | *10. The thought of harming myself has occurred to me |
| <input type="radio"/> Yes, quite a lot | <input type="radio"/> Yes, quite often |
| <input type="radio"/> Yes, sometimes | <input type="radio"/> Sometimes |
| <input type="radio"/> No, not much | <input type="radio"/> Hardly ever |
| <input type="radio"/> No, not at all | <input type="radio"/> Never |

Administered/Reviewed by _____ Date _____

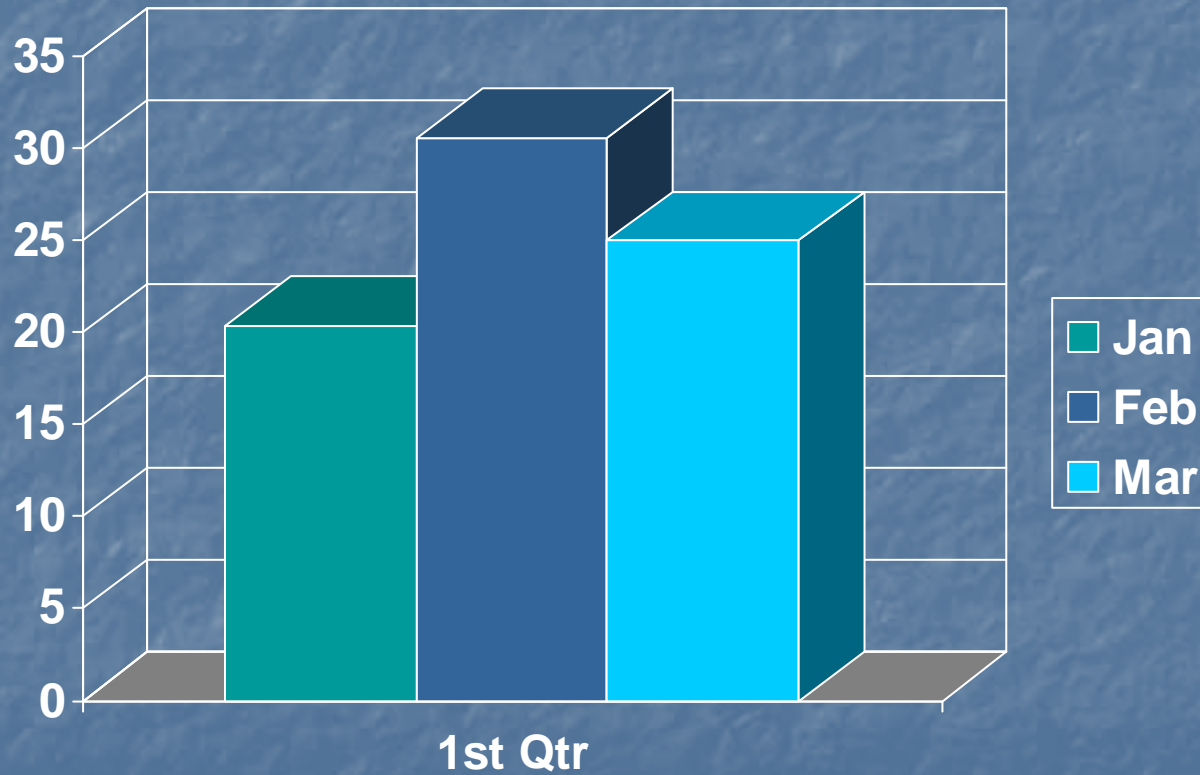
¹Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786.

Vaccine Errors

- Many possible errors in vaccine admin
 - Could give VFC vaccine to private insurance child or vice versa, document it incorrectly in the registry, etc
 - We have given >45,000 vaccines in 2013
 - Vaccine RN was 4+ frustrated at error rate after problem was “fixed” in the past
 - Latest QI project= run chart of errors/month

Run Chart example

(fake data)



Tell a story!

- 2 weeks ago, I asked our group to begin SBAR communication
 - Boring ! How to get their attention?
 - Air crash in Tenerife
- Following slides from <http://www.pbs.org/wgbh/nova/space/final-eight-minutes.html>

Tenerife

- On March 27, 1977, on the island of Tenerife in the Canary Islands, two 747 jumbo jets collided on a fog-shrouded runway, killing 583 people in what is still the deadliest crash in aviation history. Because the actions of both the flight crews of the two aircraft and Los Rodeos Airport's air traffic controllers directly contributed to the disaster, the log of conversations between the two planes and the tower in the minutes leading up to the collision was investigators' key tool for ultimately piecing together the events. Here, read an annotated transcript of the two planes' communications with the tower.



Once the KLM plane makes it to the end of Runway 12, it turns 180° and faces in the proper direction for takeoff. For the KLM plane, the runway has now become Runway 30. Pan Am 1736, meanwhile, has begun taxiing down the runway.

- **1705:53.4 APP:** KLM 8705 [sic] uh you are cleared to the Papa beacon. Climb to and maintain flight level 90 ... right turn after takeoff proceed with heading 040 until intercepting the 325 radial from Las Palmas VOR.
- **1706:09.6 KLM RT:** Ah, roger, sir, we're cleared to the Papa beacon flight level 90, right turn out 040 until intercepting the 325, and we're now (at takeoff).
- **1706:11.08:** [Brakes of KLM 4805 are released.]
- **1706:12.25 KLM 1:** Let's go ... check thrust.
- **1706:14.00:** [Sound of engines starting to accelerate.]
- **1706:18.19 APP:** Okay.
- **Why Air Traffic Control would say "okay" after KLM has said it is taking off is unknown.** Perhaps, the official investigation noted, the controller thought that KLM meant "we're now at takeoff *position*." But the problem is compounded in the moments immediately following, when both Air Traffic Control and Pan Am RT **speak simultaneously**. This causes a shrill noise in the KLM cockpit that lasts for almost four seconds and makes the **following three communications hard to hear in the KLM cockpit**:
 - **1706:20.08 APP:** Stand by for takeoff ... I will call you.
 - **PA1:** No, uh.
 - **PA RT:** And we are still taxiing down the runway, the Clipper 1736.

Aviation/medical safety

- Root cause= communication failure
 - Solution- controlled vocabulary, close the communication loop
 - Similar issues in medicine
- Aviation does a great job on QA & QI
 - Checklists!
 - "Checklist Manifesto" Atul Gawande
 - Clinical flowsheets= checklists

SBAR

- Situation
- Background
- Assessment
- Recommendation

SBAR example

- Here is an example of a call to a physician using SBAR:

- ***Introduction***

Dr. Jones, this is Deb McDonald RN, I am calling from ABC Hospital about your patient Jane Smith.

- ***Situation***

Here's the situation: Mrs. Smith is having increasing dyspnea and is complaining of chest pain.

- ***Background***

The supporting background information is that she had a total knee replacement two days ago. About two hours ago she began complaining of chest pain. Her pulse is 120 and her blood pressure is 128/54. She is restless and short of breath.

- ***Assessment***

My assessment of the situation is that she may be having a cardiac event or a pulmonary embolism.

- ***Recommendation***

I recommend that you see her immediately and that we start her on O2 stat. Do you agree?

- <http://www.saferhealthcare.com/sbar/what-is-sbar/>

Checklists

- New patient
 - Vaccine records, med list, specialist list, PCMH policy
- Closing the office
 - Confirm fridge door closed, all computers logged out, etc
 - Simple and fun!
- Meaningful Use fun

Click to add notes

AutoShapes

Slide 1 of 29

Textured



DELL

Diasio

-Diagnosis in Dx widget (or no Dx)	≥80%
-NO allergies in Rx module OR allergy selected	≥80%
-meds in Rx module OR "no Meds" selected	≥80%
-IF ≥ 2yo Ht,Wt in Vitals widget	≥50%
-IF ≥ 3yo BP in Vitals widget	≥50%
-IF ≥ 13, Smoking status entered	≥50%



Mom

- purse
- wallet
- phone
- glasses

Zack

- glasses
- phone

Dad

- do a barrel
- eat ^{roll} lots of beans
- car wax scraper
- shamwow
- Triscuits

Huddles

- Mentor young physicians
- The clinician is the Quarterback
 - Our attitude sets the tone
 - Lead the care team
 - Predict problems
 - Organize records, supplies
- Huddle sheet next page modified from
www.improvingchroniccare.org/downloads/3.4_huddle_sheet.doc

Huddle Sheet

- What can we actively anticipate and plan for in our work day/week? At the beginning of the day, hold a review of the day & review of the coming week. Frequency of daily review is dependent on the situation, but a mid-day review is also helpful.

Sandhills Pediatrics—SP - 7 L – R	
Clinician: _____	Date: _____
Aim: Enable the practice to actively anticipate and plan actions based on patient need and available resources, and contingency planning.	
Follow-ups from Last day in clinic:	
“Heads up” for Today: (include special patient needs, sick calls, staff flexibility, contingency plans)	
<ul style="list-style-type: none"> - Vaccine records? - Consultant notes? - Translators needed? - CSHCN/NET? - Roadblocks? - Best overbook locations(notify call ctr)? - Procedures to be done? - Social History? - Meetings/early departure from clinic? 	
Review of Tomorrow and active Planning/ Huddle PDSA	

Child Psychiatry

- Just added an employed Child Psychiatrist!
 - Billing is incredibly hard
 - Some BCBS mental health goes to BCBS, some to Magellan, some to United Health Care!
 - The separation of the mind from the body in insurance world makes the whole person care we want to provide incredibly difficult

Conclusion

- PCMH is an organized list of QI projects
 - Find the projects that mean the most to you and your staff
 - Ask your patients!
- Innovate! Change to world to be the one you want to live in!