

Asthma:

Our quality improvement experience

Jon Hunchuck, PharmD, BCACP
Pharmacist, North York FHT
October 17, 2012



Outline

- Why asthma?
- Identifying providers and patients
- Data collection
- Organizing care
- Reaching out

Who - Providers

- Team
 - MD
 - NP
 - RPh
 - Office administrator
 - Front desk

Who - Patients

- All 493 (ICD-9) in last 4 years
- Chart audit (“manual”)
- Expected vs. confirmed vs. suspected

Who - Patients

- Expected
 - Rostered 1296 patients
 - 13.3% asthma prevalence in Ontario
 - Estimate 173 patients
- Actual
 - 100 patients on “first pass”
 - 8 objectively tested or untestable
 - 26 miscoded
 - 66 clinically suspected

Enabling Data Collection

...



Capturing the elusive patient

- Letter mailing
 - Rationale for objective testing
 - Pulmonary function testing (PFT)
 - Methacholine challenge (MC)
 - Identify need for individual to complete
- Waiting room questionnaire
 - Chart alert added
 - Questionnaire at every visit

The Letter

Dear Recipient,

The quality of care that you receive is very important to us, and we are currently working to improve how asthma is managed. The first step toward improving the quality of asthma care is to ensure that all patients with suspected asthma have the proper tests performed. The best way to diagnose and confirm asthma is to have a pulmonary function test (PFT).

According to our records, you have been identified as possibly having asthma; our records indicate that you have never had a PFT done, or that you have not had this test done in the past year. We would like to arrange a PFT for you at our hospital. If the results of your PFT are normal, we might arrange for a further test called a methacholine challenge, in which you breathe a bit of medication to let us know how twitchy your airways are. This test is also done at our hospital, on a later date, and the technician will discuss and explain the test to you before booking it.

The PFT is a quick, simple breathing test that measures how much air you can blow out of your lungs. For this test, you will be asked to blow hard and long through a tube attached to a small machine. The machine will show how many litres of air you can push out of your lungs and how fast. The methacholine challenge test is the same thing but with the addition of the medication. Both tests are covered by the provincial health plan.



The Questionnaire

- In the past 30 days:
 - number of DAYS you have had with asthma symptoms:
 - number of NIGHTS you have had with asthma symptoms:
 - number of days you needed to use your reliever (eg. Ventolin®):
 - number of days you missed work/school because of asthma:
- In past 30 days, did you have:
 - a visit to Emergency for asthma? Yes No
 - a hospital admission for asthma? Yes No
- Do you smoke? Yes No
 - if you smoke, would you be interested in getting help to quit? Yes No
- Would you like to update your asthma action plan?
Yes No
- Date of your last Pulmonary Function Test:



Process Mapping

...



Process Mapping

- Need became evident after undertaking asthma care renewal in office
 - Start, finish, and everything between
 - Organizing personnel and responsibilities

Suspected or possible asthma

Asthma Dx confirmation needed?

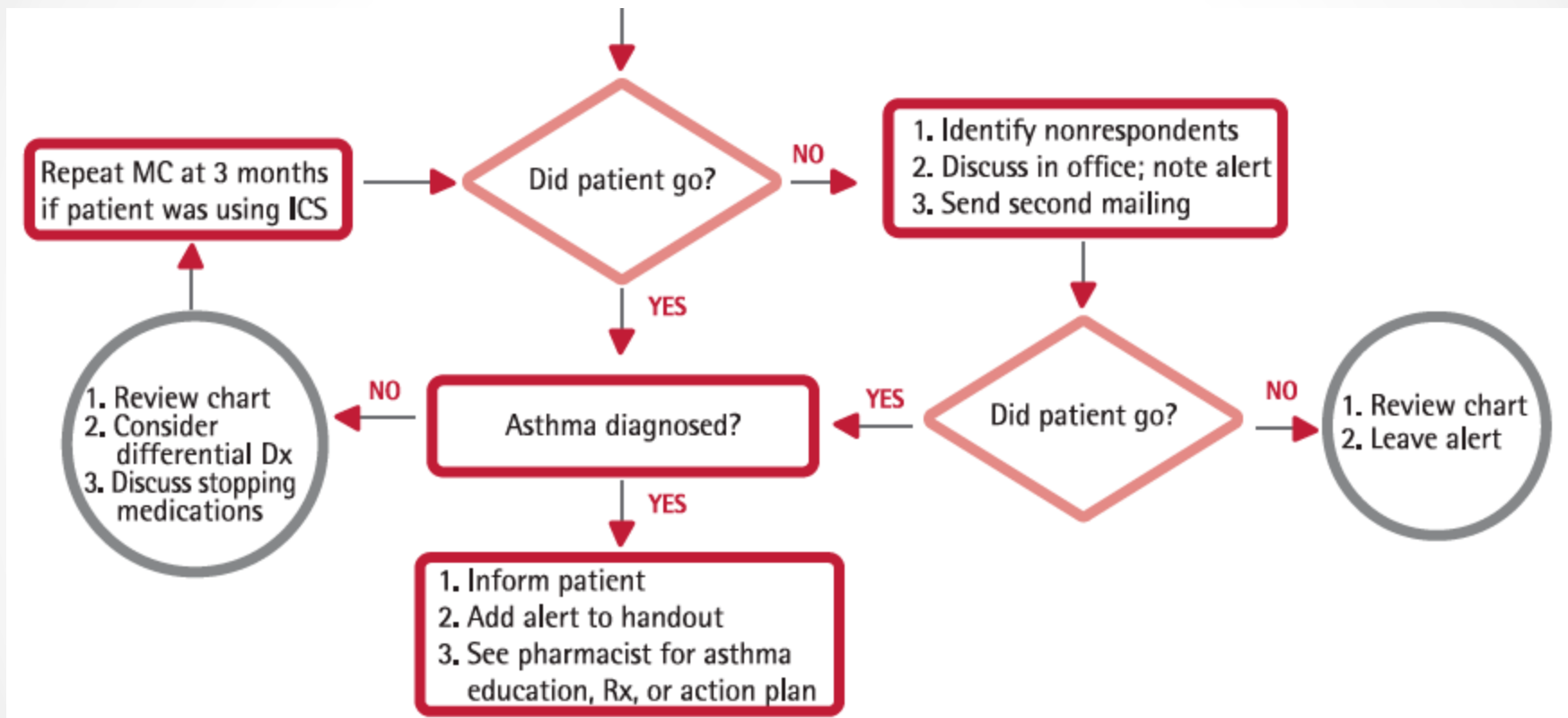
NO

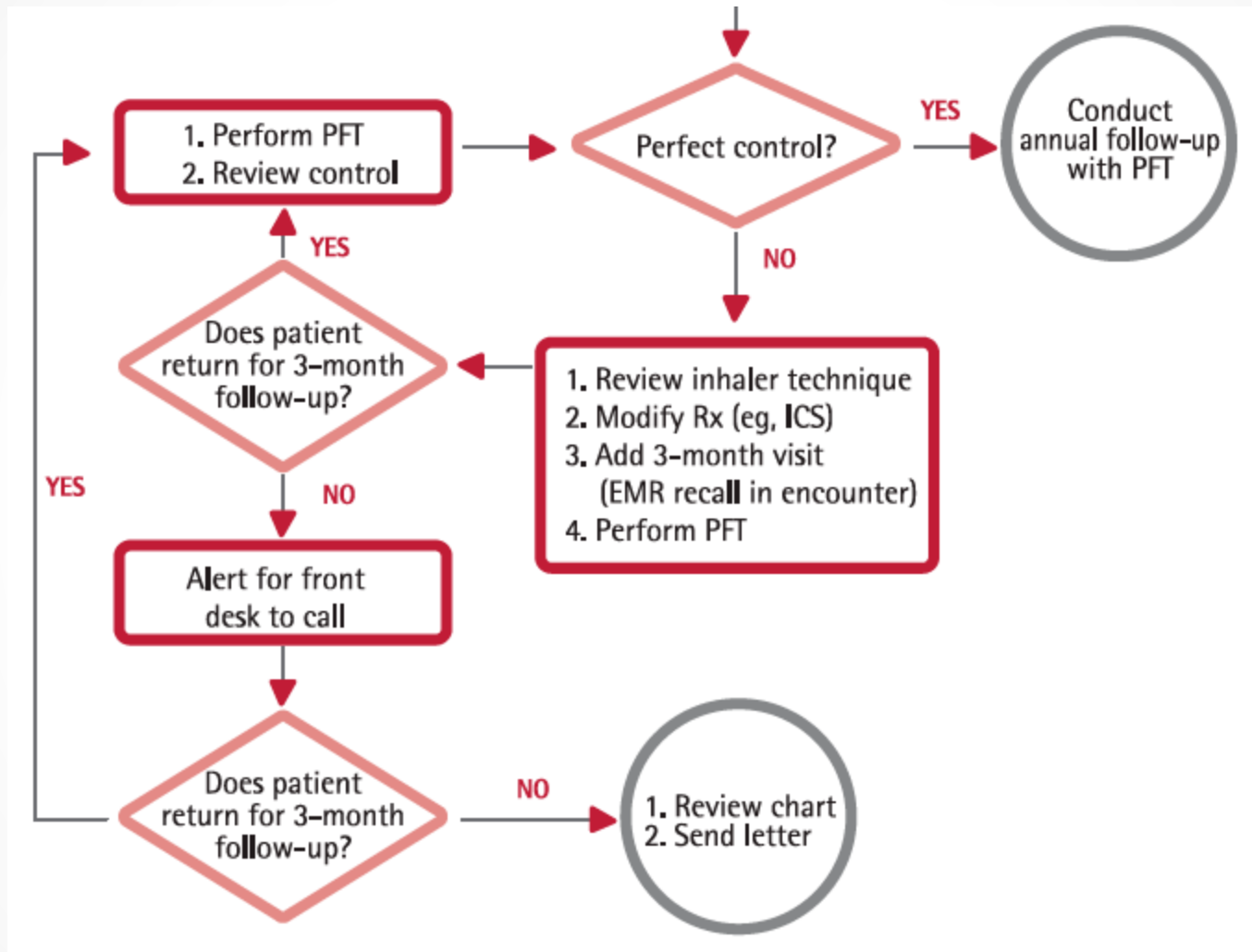
- 1. Asthma previously confirmed (abnormal PFT or MC results) OR
- 2. Age < 6 years OR
- 3. Dementia or other contraindications

Add the following alert to handout:
Annual follow-up with PFT

YES

Letter and requisition for PFT or MC





Who - Patients

- After the letter
 - 31 completed PFT
 - 5 consistent with asthma
 - 24 completed MC
 - 13 consistent with asthma
- Asthma registry
 - 30 patients
 - Chart alerts,
 - Periodic mailing (eg. flu shots)

External Partnerships

- Expert review by respirology
 - Dr. Alan Kaplan
 - Dr. Anthony D'Urzo
- Pulmonary function laboratory at hospital
 - Can they meet potential increase in demand?

Questions

...



References

1. Greiver M et al. *Can Fam Physician*. 2012;58:773-4.
2. Lougheed MD et al. *Can Respir J*. 2010;17:15-24.
3. Gershon AS et al. *Am J Epidemiol*. 2005;172:728-36.
4. Aaron SD et al. *CMAJ*. 2008;179:1121-31.
5. Kaplan A, Stanbrook M. *Can Fam Physician*. 2010;56:126-8.
6. D'Urzo A. *Can Fam Physician*. 2010;56:127-9.