

*Medical Information to Support the Decisions of TUE Committees
Post Infectious Cough*



Introduction

Cough due to viral respiratory infections is the most common cause of acute cough. Adults suffer from 2-5 upper respiratory tract infections per year. There are 200 identified viruses that can cause the "common cold". Up to 15% of affected individuals will present with a post infectious cough syndrome which persists from 3-8 weeks post viral upper respiratory infection. This is known as a sub-acute cough. An acute cough is defined as a cough lasting less than 3 weeks.

1. Medical Condition

The etiology of the post infectious cough is thought to be an inflammatory response triggered by the original viral upper respiratory infection. This post-viral inflammatory response may include bronchial hyper-responsiveness, mucus hypersecretion and impaired mucociliary clearance. Post infectious cough is a self-limiting condition which will dissipate usually within 2 months with no treatment. The cough symptoms however are significant enough that treatment is often necessary for symptom control.

2. Diagnosis

A. Medical history

Post infectious cough is a diagnosis of exclusion. Other causes of cough to be considered include:

- Asthma
- Smoking
- Environmental exposures
- Sinusitis
- Allergic rhinitis
- Viral infections such as infectious mononucleosis
- GERD (gastroesophageal reflux disease)
- Bronchitis (acute and chronic)
- Medication induced
 - ACE inhibitor
 - Beta blocker in the asthmatic
- Chronic obstructive lung disease
- Pertussis
- Other uncommon causes such as pulmonary embolism, cardiac, neoplasm, cystic fibrosis

B. Diagnosis criteria

The cough should follow symptoms of an acute respiratory infection for at least 3 weeks, but not more than 8 weeks.

Clinical examination is completed to ascertain the presence of other causes of chronic cough listed above.

Radiological evaluation will be normal.

Other diagnosis testing to rule out causes of cough listed above will also be negative in the Post Infectious Cough syndrome.

3. Medical best practice treatment

A. Name of prohibited substance:

Inhaled preparations of Glucocorticosteroid 1-2 puffs

- i) Route: inhaled
- ii) Frequency: BID
- iii) Recommended duration: up to 8 weeks as needed for symptom control.
- iv) TUE requirements: a Declaration of Use is required.

B. Name of prohibited substance:

Oral decongestant (pseudoephedrine) and 1st generation (sedating) anti-histamine combination (if available)

- i) Route: Oral
- ii) Frequency: As indicated on the manufacturer's label
- iii) Recommended duration: up to 8 weeks as needed for symptom control.
- iv) TUE requirements: **CAUTION:** Pseudoephedrine is prohibited in competition at a urinary concentration above the threshold of 150ng/ml as of January 1, 2010). The threshold level has been established based on the intake of therapeutic doses of PSE, defined as a maximum daily dose of 240 mg PSE taken either as:
 - Four (4) daily administrations (one every 4-6 hours) of a 60mg pill (or 2 x 30 mg pills), or
 - Two (2) daily administrations (one every 12 hours) of a 120mg pill (extended release), or
 - One (1) daily administration of a 240mg pill (extended release). The TUE application should demonstrate the presence of the condition as evidenced by history and physical examination in addition to failed trials of other non-prohibited substances.

C. Name of prohibited substance:

Oral preparations of Glucocorticosteroid: (example: prednisone 30-40 mg). Oral glucocorticosteroids may be necessary in severe cases where inhaled glucocorticosteroid therapy has been in-effective. Oral glucocorticosteroids are prohibited in-competition only.

- i) Route: Oral
- ii) Frequency: OD
- iv) Recommended duration: short finite period of time such as 4-5 days.
- v) TUE requirements: A Therapeutic Use Exemption is required for oral glucocorticosteroids for in-competition use. The application should demonstrate a failed trial of inhaled glucocorticosteroids.

4. Other non-prohibited alternative treatments?

Ensure adequate hydration.

Antibiotics are not efficacious in the treatment of post-infectious cough unless in the presence of bacterial sinusitis.

Ipratropium inhaled/nasal spray may be necessary if cough is associated with rhinitis.

NSAIDS may be helpful based upon a small randomized placebo controlled study.

5. Consequences to health if no treatment

Although this condition is self-limiting and not life threatening, the cough may cause significant impairment to quality of life causing both physical and emotional distress and sleep disturbance. Treatment is often necessary for symptom control.

6. Treatment monitoring

Treatment is monitored by the treating physician to ensure efficacy of the treatment regimen.

In the athlete with the persistent cough greater than 8 weeks, referral to a respiratory specialist is indicated to investigate for other underlying conditions.

7. Duration of therapy and recommended review process

Therapy should be continued until symptoms dissipate. This may last usually up to 2 months.

8. Any appropriate cautionary matters

If the cough persists beyond 8 weeks, a work up for chronic cough should ensue.

9. Bibliography

Irwin RS, Bauman MH, Bolser DG, Boulet LP, et.al. Diagnosis & Management of Cough Executive Summary: ACCP (American College of Chest Physicians) Evidence-Based Clinical Practice Guidelines. Chest. 2006; 129:1S-23S.

Boulet LP. Tout sur la toux! Le clinicien. 2008; 81-86

Morice AH, Fontana GA, Belvisi MG, al. ERS Guidelines on the assessment of cough. Eur Respir J 2007; 29: 1256-1276.

Morice AH, Fontana GA, McGarvey L, Pavard. British Thoracic Society Guidelines: Recommendations for the management of cough in adults. Thorax. 2006; 61: i1-i24.

Pratter MR, Cough & the Common Cold: ACCCP (American College of Chest Physicians) Evidence-Based Clinical Practice Guidelines; Chest. 2006; 129; 72S-74S.

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