المرشد العلاجي في وصف الصادات في التهاب الحلق الحاد

نقاشات اللجنة حول عدم استخدام الصادات – استخدام الصادات الداعمة-تحديد الناس المستفيدين للصادات

- استناداً على البرهان و التجربة, أقرت اللجنة على أن التهاب البلعوم الحاد هو انتان محدد لذاته و معظم الناس ستتحسن خلال أسبوع دون علاج بالصادات . استناداً على البرهان و التجربة أقرت اللجنة على أن الاختلاطات نادرة عند الأطفال و البالغين و لاحظت اللجنة التأثيرات الضارة المترافقة مع العلاج بالصادات .
- أقرت اللجنة أن واصفي الأدوية بحاجة أن يوازنوا الفوائد السريرية القليلة من العلاج بالصادات مع إمكانيتها لعمل تأثيرات ضارة .
- استناداً إلى البرهان و التجربة أقرت اللجنة أن عدم استخدام الصادات أو استخدام الصادات الداعمة كان كفعالية الوصف الفوري للصادات للناس المصابين بالتهاب بلعوم حاد . يتم وصف الصادات الداعمة في حال تدهورت الأعراض بسرعة أو بشكل مهم أو لم تتحسن خلال 3-5 أيام .
- ناقشت اللجنة أنظمة نقاط سريرية ممكنة للمساعدة في تحديد الناس المصابين بالتهاب بلعوم حاد الذين يمكن استفادتهم من العلاج بالصادات و لاحظت أن معيار مركز الحمى و الألم لم تتشرع في المملكة المتحدة.
- أدركت اللجنة أن معايير مركز الحمى و الألم تم تطويرها في المملكة المتحدة كإجراءات رعاية أولية في 2013 و لم يتم تقييمها في الأطفال تحت 3 سنوات . لم يتم إجراء شرعية خارجية لها و لكن هذه المعايير تم اختبارها في دراسات RCT .
- أداة نقاط الحمى و الألم يمكن أن تساعد واصفي الأدوية لتحديد فيما إذا كان التهاب البلعوم عند الشخص أكثر استفادة على من الصادات . أداة النقاط تتضمن معيار الألم و الحمى بالإضافة إلى متغيرات لماعدة واصفي الأدوية لتحديد شدة التهاب البلعوم . المتغيرات الإضافية لا تؤثر إجمالياً على مشعر نقاط الحمى و الألم . اللجنة كانت مدركة أن الأداة قد تساعد واصفي الأدوية المتعلقة بالألم و الحمى في الممارسة و الدعم بالمشاركة باتخاذ القرارت مع الناس .
- لاحظت اللجنة أن معيار سينتور تم تطويره في الولايات المتحدة وفق قواعد قسم الإسعاف عام 1980 و تم تقييمها فقط عند البالغين . اللجنة كانت مدركة أن المرشد السريري من NICE الخاص بالصادات الحيوية الموصوفة لإنتانات الجهاز التنفسي المحددة لذاتها تستخدم معيار سينتور . لم يكن معيار الحمى و الألم متوفراً عندما تم نشر هذا المرشد
- لاحظت اللجنة أن مشعر الحمى و الألم ل 4 أو 5 يعتقيد أنه تم مشاركته مع 62-65% احتمالية وجود عدوى جرثومية و التي هي أعلى من 32-56% احتماليته مشاركته مع مشعر سينتور ل 3 أو 4

- اللجنة كانت مدركة أن استخدام مشعر الحمى و الألم المفضل على مشعر سينتور قد يزيد من وصف الصادات الداعمة . لكن اللجنة ناقشت فيما إذا كان وصف الصادات الداعمة قد يقلل من استخدام الصادات عموماً على اعتبار أن ثلثي الناس لن تأخذ الصادات
- اللجنة عرفت نصائح المرشد السريري ل NICE الخاصة بالصادات الموصوفة للانتانات التنفسية المحددة لذاتها بعدم استخدام أو استخدام الصادات الداعمة في التهاب البلعوم المحدد لذاته , أن وصف الصادات الفورية هو أيضاً خيار للناس المصابين بالتهاب البلعوم الحاد عندما مشعر سينتور 3 أو أكثر
- ناقشت اللجنة معيار الحمى و الألم 4 أو 5 أو معيار سينتور 3 أو 4 , في بعض الناس مع هذه النقاط و لكن بأعراض خفيفة و لم يتم وصف صادات فورية , استخدمت اللجنة خبرتها و وافقت على أن وصف صادات داعمة قد يكون مناسب لهكذا مرضى , استبعاد الصادات غير مستحب بسبب المضاعفات
- ناقشت اللجنة معيار الحمى و الألم 0 أو معيار سينتور 0أو 1أو 2 . اللجنة كانت مدركة أن المرشد السريري الخاص بوصف الصادات للانتانات التنفسية المحددة لذاتها ينصح إما بعدم وصف صادات أو وصف صادات داعمة للناس مع هذه النقاط من سنتور , لكن استناداً على البرهان و التجربة و مبادئ مضادات البكتيريا , اللجنة نصحت بعدم وصف صادات لهذه المجموعة
- اللجنة كانت مدركة أن معيار الحمى و الألم لم يتم اختباره في الناس تحت 3 سنوات و أن مشعر سينتور تم تطويره عند البالغين لكن اللجنة باستخدام خبرتها نصحت أن الأطفال تحت 3 سنوات غير مستحب تضمينهم كالتهاب بلعوم لوحده , على واصفي الأدوية اتباع مرشد NICE للحمى تحت 5s لتحديد و تدبير هذه المجموعة من السكان .
- اللجنة أقرت أنه حالياً ثمة عدم جزم حول أي معيار هو أكثر فعالية في سكان المملكة المتحدة . هم لاحظوا أن كلا المعيارين مستخدم في الممارسة السريرية و أن استخدام أداة النقاط أفضل من عدم استخدام أي أداة . اللجنة أقرت أنه إما معيار الحمى و الألم أو معيار سينتور يجب استخدامه لتحديد الناس المصابين بالتهاب بلعوم حاد المتوقع استفادتهم من العلاج بالصادات .

اختيار الصادات

- لا يوجد فروق كبيرة في الفعالية السريرية بين أصناف الصادات متضمنة: البنسلين – السيفالوسبورين – ماكروليدات – سلفونااميدات عند البالغين و الأطفال المصابين بالتهاب بلعوم حاد بالعقديات الحالة للدم إيجابية الغرام (GABHS) . كان ذلك استناداً على براهين ذات جودة منخفضة جداً إلى متوسطة من دراستين مرجعيتين من نمط systematic review و meta analysis . إحصائياً: شوهد فروق مهمة في بعض المقارنات لكن الاختلافات المطلقة بين الصادات كانت كانت قليلة .
- لم يشاهد فروق مهمة في النتائج الضارة للسيفالوسيورين و الماكروليدات أو السلفانوميدات مقارنة مع فينوكسيميتلين البنسلين في دراسة مرجعية واحدة , الدراسة الأخرى وجدت أن المعالجة اللأقصر بالجيل المتأخر من الصادات واسعة الطيف ترافقت مع أضرار مهمة مقارنة بالعلاج 10 أيام بالفينوكسيميتلين البنسلين .

تكرار جرعة الصادات

- مرتان باليوم للفينوكسيميتلين البنسلين كان بفعالية 3 أو 4 مرات من المعالجة الميكروبيولوجية في لاالبالغين و الأطفال المصابين بالتهاب البلعوم الحاد بال +GABH كان ذلك استناداً على دليل بجودة منخفضة من دراسة مرجعية واحدة بنوع systematic review و meta analysis. جرعة واحدة يومياً كان أقل فعالية بشكل مهم من 3 أو 4 جرع فينوسكيميتيل البنسلين (دليل منخفض الجودة).

نقاشات اللجنة حول اختيار الصادات – الجرعة – التكرار

- ناقشت اللجنة أنه عموماً إذا كان هناك حاجة لعلاج الانتان الغير المهدد للحياة فإن صادات ضيقة الطيف يجب أن تستخدم كخيار أول . الاستخدام العبثي للصادات واسعة الطيف غير مرغوب بها لأنها تطور ميزات مقاومة للبكتيريا حتى للخط الأخير للصادات واسعة الطيف . و تقتل الفلورا الطبيعية المتعايشة تاركة الشخص عرضةً للإصابة ببكتيريا مقاومة و مؤذية كالمطثيات الصعبة . للانتانات غير المهددة للحياة يجب الاحتفاظ بالصادات واسعة الطيف كخط ثاني للعلاج في حال عدم فعالية الصادات ضيقة الطيف .
استناداً إلى الدليل و الخبرة السريرية و بيانات المقاومة أقرت اللجنة بنصح استخدام الفينوكسي ميتيل البنسلين كخيار أول و هو بنسلين ضيق الطيف مع أقل خطر لتطوير مقاومة
- ناقشت اللجنة فيما إذا كان الأموكسيسلين بديل مناسب للفينوكسيميتيل البنسلين لعدم التآزر الدوائي لكنها كانت مدركة لدليل أن خطر المقاومة للأموكسيسيلين متزايد بشكل مهم في الحالات البولية المعزولة للايشريكيا الكولونية المتبوعة بالعلاج بالأموكسيسيلين . هذه التأثيرات هي الأكبر في الشهر الأول بعد الاستخدام و لكنها تكتشف حتى 12 شهر .أيضاً إذا كان التهاب البلعوم مرتبطاً بحمى وحيدة النوى فإن ال BNF تقول بشيوع حصول اندفاعات حمراء عند بعض المرضى الآخذين للأموكسيسلين
- ناقشت اللجنة دراسة مرجعية (Lan and colford 2000) و اقترحت أن جرعة مرتين يومياً كانت بفعالية جرعة 4 مرات يومياً . اللجنة لاحظت أن جرعة 4 مرات يومياً كانتن الجرعة النموذجية تكراراً للفينوكسي ميتيل البنسلين و أنها الجرعة الأكثر استخداماً في الدراسات . لاحظت اللجنة أن هذا الدليل منخفض الجودة باستخدام البيانات من 6 دراسات فقط و العلاج البكتيريوبيولوجي للمتابعة لنتيجة الفعالية
- اللجنة ناقشت فوائد و أضرار استخدام جرعتين يومياً من الفينوكسيميتيل البنسلين . جرعة مرتين يومياً تدعم التآزر الدوائي في المرضى الذين يستصعبون أخذ 4 جرع بفاصل 6 ساعات قبل الطعام كالأطفال في المدارس . اللجنة اعتبرت أنه إذا استخدمت جرعة مرتين يومياً فإن مستويات الفينوكسي ميتيل البنسلين قد تنحدر أقل من تركيز التثبيط الأصغري . لكنها ناقشت أيضاً أن العقديات ذات حساسية عالية للفينوكسي ميتيل

البنسلين و أن إدخال الصاد في نسيج البلعوم الملتهب جيد و بذلك حتى أقل التراكيز من الصاد سوف تعالج الانتان

- استناداً إلى الدليل و التجربة السريرية وافقت اللجنة أنه إذا وصف الفينوكسي ميتيل البنسلين مرتان يومياً أو 4 مرات يومياً فإنه سوف يزود بنفس الجرعة اليومية
- استناداً على الدليل و التجربة السريرية و بيانات المقاومة . اللجنة وافقت على النصح باستخدام بدائل صادات الخط الأول التالية في حال الحساسية للبنسلين أو عدم تحمل الفينوكسي ميتيل البنسلين و هي : الكلاريترومايسين أو اريترومايسين (المفضل بالحمل) و التي هي ماكروليدات تعطى بالجرعات الاعتيادية
- استناداً على الدليل بأنه لا يوجد اختلافات كبرى في الفعالية السريرية بين أصناف الصادات , اللجنة استخدمت خبرتها لتقر أن الاختيار يجب أن يأخذ هدف تقليل المقاومة

مدة العلاج

- في الناس بالتهاب بلعوم بال +GABH , العلاج بالفينوكسي ميتيل البنسلين ل5 إلى 7 أيام كان أقل فائدة ميكروبيولوجياً علاجياً بشكل واضح من العلاج لعشرة أيام , كان هذا استناداً على دليل بجودة منخفضة من دراسة مرجعية واحدة من نوع systematic review و meta-analysis (Flagas et al2008)
- لم يشاهد فروق مهمة بين 5 ل 7 أيام من العلاج بالفينوكسي ميتيل البنسلين مقارنة ب 10 أيام على معدل النكس (دليل منخفض الجودة جداً)
- قارنت هذه الدراسة مدة العلاج بالفينوكسي دون أن تأخذ الأضرار بالاعتبار

نقاش اللجنة حول مدة العلاج بالصادات

- أقرت اللجنة أنه عندما يكون الصاد مناسب فإن أقصر مدة للعلاج و التي تكون فيها فعالة يجب أن توصف لتقليل خطر المقاومة المضادة للميكروبات و تقليل خطر التأثيرات الضارة
- لاحظت اللجنة أن معظم الدراسات تتضمن استخدام الكلاريترومايسين أو الاريترومايسين ل 5 أيام حيث أن معظم الدراسات تتضمن استخدام الفينوكسي ميتيل البنسلين ل 10 أيم
- لاحظت الجنة أنه ولا دراسة محددة قارنت العلاج بالفينوكسي ميتيل البنسلين ل 10 أيام و 5 أيام منه بالجرعة المنصوح بها (500 ملغ أربع مرات يومياً) لكن اللجنة كانت مدركة من خبرتها أن كثير من الناس لا تكمل العشرة الأيام للعلاج
- استناداً على البرهان , ميزت اللجنة أن العلاج الميكروبيولوجي قد يكون أفضل بالعلاج لعشرة أيام بالفينوكسي ميتيل البنسلين مقارنة مع 5ل7 أيام من العلاج , أيضاً لم يكن هناك فرق بالنكس .
- هم أقروا أنه في حالات عدم الحاجة للقضاء على البكتيريا بشكل خاص و في حال العلاج العرضي هو الهدف , إذا كان القرار وصف صاد حيوي , العلاج الأقصر

بالفينوكسي ميتيل البنسلين قد يكون كافٍ . لكن في حالات الانتان الناكس , فإن العلاج عشرة أيام قد يضاعف العلاج الميكروبيولوجي .

- استناداً إلى البرهان و الخبرة السريرية و بيانات المقاومة , اللجنة أقرت أنه في حال كان الصاد مناسب فإن علاج 5 ل 10 أيام من الفينوكسي ميتيل البنسلين كان ضرورياً .
- اللجنة كانت مدركة أن معلقات زجاجات الفينوكسي ميتيل البنسلين تنتهي صلاحيتها خلال 7 أيام بعد فتحها و هنا نكون بحاجة لزجاجة ثانية لإكمال فترة علاج عشرة أيام . وصف علاج 7 أيام قد يساعد في حال التعزيز الدوائي .
- العلاج ل 5 أيام بالكلاريترومايسين أو الاريترومايسين (المفضل بالحمل) هو خيار بديل للناس المتحسسين على البنسلين أو عدم التحمل . مدة فترة العلاج تأخذ بالاعتبار فعالية العلاج و معايير السلامة للصاد الحيوي و تقليل خطر المقاومة

اعتبارات أخرى

التداخل الدوائي

- التداخل الدوائي قد يكون مشكلة لبعض الناس الذين يتطلب علاجهم فترة أطول أو جرعات متعددة

تضمين الموارد

- إنتانات السبيل التنفسي متضمنة التهاب البلعوم الحاد هي سبب شائع للاستشارة بالرعاية الأولية و بذلك سبب شائع للوصف الاحتمالي للصادات . في مسح 2011 للرعاية الأولية في المملكة المتحدة (Gulliford et al 2014) الاستشارات لالتهاب البلعوم حسبت 27% من كل الاستشارات انتانات السبيل التنفسي و الممارسة تصف بشكل وسطي ل 60% منها .
- هناك احتمالية للمحافظة على الموارد في حال اتباع استراتيجية عدم وصف صادات أو استخدام الصادات الداعمة . دراسة مرجعية (de le Poza Abad et al 2016) وجدت معدلات أقل مهمة لمجموعة الصادات في المجموعة المتأخرة للوصفات

(26.0%,p<0.001) مقارنة مع الوصف الفوري للصادات (89.1% دليل منخفض الجودة)

- الصادات المنصوح بها متوفرة جميعها كمستحضرات

مصطلحات تم استخدامها في المرشد

معيار الحمى و الألم و معيار سينتور هي أدوات نقاط سريرية تساعد في تحديد الناس المفضل استخدام المرشد عليهم

معايير الحمى و الألم

- حمى (خلال ال24 ساعة الماضية)
- تقيح (قيح على اللوزتين)
- تفاقم سريع (خلال ثلاثة أيام من بداي الأعراض)
- التهاب لوزات حاد
- لا سعال أو زكام (التهاب أغشية مخاطية بالأنف)

كل واحد من معايير الحمى و الألم يأخذ نقطة واحدة (أعلى مجموع 5) المجموع الأعلى يقترح أعراض أكثر شدة و أقرب للبكتيريا (العقديات) كسبب .

مجموع 0 أو 1 يعتقد بمشاركته 13-18% بعقديات معزولة

مجموع 2 أو 3 يعتقد بمشاركته 34-40% بعقديات معزولة

مجموع 4 أو 5 يعتقد بمشاركته 62-65% بعقديات معزولة

معايير سينتور

- إفرازات لوزية
- مضض في العقد الرقبية اللمفاوية أو التهاب عقد لمفاوية
- قصة حمى أكثر من 38
- غياب السعال

كل واحد من معايير سينتور يأخذ نقطة واحدة (أعلى مجموع 4)

مجموع 0 أو 1 أو 2 يقترح بوجود عقديات معزولة بنسبة 3-17%

مجموع 3 أو 4 يقترح بوجود عقديات معزولة بنسبة 32 ل 56%

إعداد الأطباء المقيمين

د. يزن عاصي

د. محمد حسن

شعبة الأذنية \ مشفى تشرين العسكري

NICE National Institute for Health and Care Excellence

Public Health England

NICE guideline

Sore throat (acute): antimicrobial prescribing

NICE guideline

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www.nice.org.uk/guidance/ng84

Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

Overview

This guideline sets out an antimicrobial prescribing strategy for acute sore throat. It aims to limit antibiotic use and reduce antimicrobial resistance. Acute sore throat is often caused by a virus, lasts for about a week, and most people get better without antibiotics. Withholding antibiotics rarely leads to complications.

See a 2-page visual summary of the recommendations, including tables to support prescribing decisions.

NICE has also produced a guideline on antimicrobial stewardship: systems and processes for effective antimicrobial medicine use.

Who is it for?

- Health professionals
- People with acute sore throat and their families and carers

Recommendations

1.1 Managing acute sore throat

All people with acute sore throat

1.1.1 Be aware that:

- acute sore throat (including pharyngitis and tonsillitis) is self-limiting and often triggered by a viral infection of the upper respiratory tract
- symptoms can last for around 1 week, but most people will get better within this time without antibiotics, regardless of cause (bacteria or virus).

1.1.2 Assess and manage children under 5 who present with fever as outlined in the NICE guideline on fever in under 5s.

1.1.3 Use FeverPAIN or Centor criteria to identify people who are more likely to benefit from an antibiotic and manage in line with recommendations 1.1.4 to 1.1.13.

1.1.4 Give advice about:

- the usual course of acute sore throat (can last around 1 week)
- managing symptoms, including pain, fever and dehydration, with self-care (see the recommendations on self-care).

1.1.5 Reassess at any time if symptoms worsen rapidly or significantly, taking account of:

- alternative diagnoses such as scarlet fever or glandular fever
- any symptoms or signs suggesting a more serious illness or condition
- previous antibiotic use, which may lead to resistant organisms.

People who are unlikely to benefit from an antibiotic (FeverPAIN score of 0 or 1, or Centor score of 0, 1 or 2):

1.1.6 Do not offer an antibiotic prescription.

1.1.7 As well as the general advice in recommendation 1.1.4, give advice about:

- an antibiotic not being needed
- seeking medical help if symptoms worsen rapidly or significantly, do not start to improve after 1 week, or the person becomes systemically very unwell.

See the evidence and committee discussion on no antibiotic.

People who may be more likely to benefit from an antibiotic (FeverPAIN score of 2 or 3)

1.1.8 Consider no antibiotic prescription with advice (see recommendation 1.1.7) or a back-up antibiotic prescription (see recommendation 1.3.1 for choice of antibiotic), taking account of:

- evidence that antibiotics make little difference to how long symptoms last (on average, they shorten symptoms by about 16 hours)
- evidence that most people feel better after 1 week, with or without antibiotics
- the unlikely event of complications if antibiotics are withheld
- possible adverse effects, particularly diarrhoea and nausea.

1.1.9 When a back-up antibiotic prescription is given, as well as the general advice in recommendation 1.1.4, give advice about:

- an antibiotic not being needed immediately
- using the back-up prescription if symptoms do not start to improve within 3 to 5 days or if they worsen rapidly or significantly at any time
- seeking medical help if symptoms worsen rapidly or significantly or the person becomes systemically very unwell.

See the evidence and committee discussion on no antibiotic and back-up antibiotics.

People who are most likely to benefit from an antibiotic (FeverPAIN score of 4 or 5, or Centor score of 3 or 4)

1.1.10 Consider an immediate antibiotic prescription (see recommendation 1.3.1 for

choice of antibiotic), or a back-up antibiotic prescription with advice (see recommendation 1.1.9), taking account of:

- the unlikely event of complications if antibiotics are withheld
- possible adverse effects, particularly diarrhoea and nausea.

1.1.11 When an immediate antibiotic prescription is given, as well as the general advice in recommendation 1.1.4, give advice about seeking medical help if symptoms worsen rapidly or significantly or the person becomes systemically very unwell.

See the evidence and committee discussion on back-up antibiotics and choice of antibiotic.

People who are systemically very unwell, have symptoms and signs of a more serious illness or condition, or are at high-risk of complications

1.1.12 Offer an immediate antibiotic prescription (see recommendation 1.3.1 for choice of antibiotic) with advice (see recommendation 1.1.11) or further appropriate investigation and management.

1.1.13 Refer people to hospital if they have acute sore throat associated with any of the following:

- a severe systemic infection (see the NICE guideline on sepsis)
- severe suppurative complications (such as quinsy [peri-tonsillar abscess] or cellulitis, parapharyngeal abscess or retropharyngeal abscess or Lemierre syndrome).

See the evidence and committee discussion on choice of antibiotic.

1.2 Self-care

All people with acute sore throat

1.2.1 Consider paracetamol for pain or fever, or if preferred and suitable, ibuprofen.

1.2.2 Advise about the adequate intake of fluids.

1.2.3 Explain that some adults may wish to try medicated lozenges containing either a local anaesthetic, a non-steroidal anti-inflammatory drug (NSAID) or an

antiseptic. However, they may only help to reduce pain by a small amount.

1.2.4 Be aware that no evidence was found on non-medicated lozenges, mouthwashes, or local anaesthetic mouth spray used on its own.

See the evidence and committee discussion on self-care.

1.3 Choice of antibiotic

1.3.1 When prescribing an antibiotic for acute sore throat:

- follow table 1 for adults aged 18 years and over.
- follow table 2 for children and young people under 18 years.

Table 1 Antibiotics for adults aged 18 years and over

Antibiotic[1]	**Dosage and course length for adults**[2]
First choice	
Phenoxymethylpenicillin	500 mg four times a day or 1,000 mg twice a day for 5 to 10 days
Alternative first choices for penicillin allergy or intolerance[3]	
Clarithromycin	250 mg to 500 mg twice a day for 5 days
Erythromycin	250 mg to 500 mg four times a day or 500 mg to 1,000 mg twice a day for 5 days
[1]See BNF for appropriate use and dosing in specific populations, for example, hepatic impairment, renal impairment, pregnancy and breastfeeding. [2]Doses given are by mouth using immediate-release medicines, unless otherwise stated. [3]Erythromycin is preferred in women who are pregnant.	

Table 2 Antibiotics for children and young people under 18 years

Antibiotic[1]	**Dosage and course length for children and young people**[2]
First choice	

Phenoxymethylpenicillin	1 to 11 months, 62.5 mg four times a day or 125 mg twice a day for 5 to 10 days 1 to 5 years, 125 mg four times a day or 250 mg twice a day for 5 to 10 days 6 to 11 years, 250 mg four times a day or 500 mg twice a day for 5 to 10 days 12 to 17 years, 500 mg four times a day or 1,000 mg twice a day for 5 to 10 days
Alternative first choices for penicillin allergy or intolerance[3]	
Clarithromycin	1 month to 11 years: Under 8 kg, 7.5 mg/kg twice a day for 5 days 8 to 11 kg, 62.5 mg twice a day for 5 days 12 to 19 kg, 125 mg twice a day for 5 days 20 to 29 kg, 187.5 mg twice a day for 5 days 30 to 40 kg, 250 mg twice a day for 5 days or 12 to 17 years, 250 mg to 500 mg twice a day for 5 days
Erythromycin	1 month to 1 year, 125 mg four times a day or 250 mg twice a day for 5 days 2 to 7 years, 250 mg four times a day or 500 mg twice a day for 5 days 8 to 17 years, 250 mg to 500 mg four times a day or 500 mg to 1,000 mg twice a day for 5 days
[1]See BNF for children for appropriate use and dosing in specific populations, for example hepatic impairment and renal impairment. [2]The age bands apply to children of average size and, in practice, the prescriber will use the age bands in conjunction with other factors such as the severity of the condition and the child's size in relation to the average size of children of the same age. Doses given are by mouth using immediate-release medicines, unless otherwise stated. [3]Erythromycin is preferred in young women who are pregnant.	

See the evidence and committee discussion on choice of antibiotic and antibiotic course length.

Summary of the evidence

Self-care

Oral analgesia

- Overall aspirin, paracetamol and diclofenac potassium (not available to buy over the counter) were all more effective than placebo at reducing pain and fever in adults with sore throat associated with an upper respiratory tract infection. This was based on low to moderate quality evidence from 3 randomised controlled trials (RCTs) (Eccles et al. 2003, Gehanno et al. 2003 and Voelker et al. 2016).

- Overall, adverse events for aspirin, paracetamol and diclofenac potassium in the 3 RCTs did not appear to be significantly different from placebo (very low to low quality evidence), although adverse events were poorly reported. Another RCT that assessed safety outcomes (Moore et al. 2002) found significantly higher rates of adverse events with aspirin compared with ibuprofen (low quality evidence).

- Diclofenac is associated with higher cardiovascular risk than other non-selective non-steroidal anti-inflammatory drugs (NSAIDs). Risk is similar to that with selective COX-2 inhibitors. Naproxen and low-dose ibuprofen (1,200 mg daily or less in adults) are considered to have the most favourable cardiovascular safety profiles (Drug Safety Update, October 2012). Of the non-selective NSAIDs, low-dose ibuprofen has the lowest gastrointestinal risk (Drug Safety Update, December 2007).

Medicated lozenges

- Medicated lozenges containing benzocaine, hexylresorcinol or flurbiprofen may help to reduce pain compared with placebo in adults. This was based on low to moderate quality evidence from 6 RCTs (Watson et al. 2000, Benrimoj et al. 2001, Blagden et al. 2001, Chrubasik et al. 2012, McNally et al. 2012 and Schachtel et al. 2014). However, the absolute improvements in pain score were small.

- Few adverse events were reported in the RCTs with benzocaine lozenges or hexylresorcinol lozenges. Adverse events occurred in 30% to 50% of people using flurbiprofen lozenges, including taste disturbances, numbness, dry mouth and nausea.

Throat sprays

- Chlorhexidine plus benzydamine combination throat spray (not available in the UK) significantly reduced pain symptoms by day 7 compared with placebo in adults who were also

- taking phenoxymethylpenicillin. This was based on high quality evidence from an RCT (Cingi et al. 2011). The absolute improvements in symptom score were small and the clinical relevance is not clear.
- Local adverse events, including numbness and taste disturbances, were common (moderate quality evidence).
- No systematic reviews or RCTs of local anaesthetic mouth sprays (without an antiseptic) were identified.

Other interventions

- No systematic reviews or RCTs of non-medicated lozenges or mouthwashes were identified.

Committee discussions on self-care

- Based on evidence, experience and safety data the committee agreed that it was reasonable to consider paracetamol (first-line) or ibuprofen for self-care of pain or fever associated with acute sore throat. Although no studies were identified on paracetamol and ibuprofen in children with sore throat, the committee noted that these medicines have well-established efficacy and safety profiles for managing pain and fever in children.
- Based on evidence and experience, the committee agreed that people may wish to try self-care with medicated lozenges (containing a local anaesthetic, an NSAID or an antiseptic agent) to help reduce pain in acute sore throat, but should be told that the benefit is likely to be small.
- Based on evidence and experience, the committee agreed that it is unclear whether throat sprays containing an antiseptic plus a local anaesthetic help symptoms. Furthermore, the combination product used in the study is not available in the UK.
- The committee agreed that prescribers should be aware that no evidence was found on non-medicated lozenges, mouthwashes or local anaesthetic mouth sprays (without an antiseptic).
- The committee was aware of the potential benefits of avoiding GP appointments if people access self-care and seek advice from other health professionals, particularly their community pharmacist, rather than making an appointment to see their GP. The committee agreed that community pharmacists are often more accessible to people than GPs to offer advice.

Corticosteroids

- Corticosteroids (oral or intramuscular) significantly increased the number of adults and children with no pain at 24 and 48 hours (number needed to treat [NNT] 4 [range 3 to 6]; high quality evidence) and significantly reduced the time to pain resolution by about 14 hours (low quality evidence), compared with placebo. This was based on a systematic review of RCTs (Hayward et al. 2012). There were no significant differences between corticosteroids and placebo in recurrence or relapse of symptoms, or in the number of days missed from work or school (low to moderate quality evidence). All people in the studies were also treated with antibiotics.
- A single dose of dexamethasone given to adults who did not need an immediate antibiotic prescription did not increase the proportion of people with resolution of symptoms at 24 hours, although a significant difference was seen at 48 hours. This was based on moderate quality evidence from an RCT (Hayward et al. 2017).
- There was no difference in adverse events for people taking corticosteroids compared with placebo, although reporting of adverse events was incomplete. The RCTs were not large enough to identify rare adverse events associated with corticosteroids.

Committee discussions on corticosteroids

- The committee noted that most studies of corticosteroids were carried out in accident and emergency departments and included people with more severe symptoms.
- The committee noted that the studies did not report on the long-term safety of corticosteroids and the risks of recurrent treatment. No studies compared corticosteroids with analgesia.
- The committee agreed that sore throat is a self-limiting illness and there are concerns about the safety of corticosteroids and the risks of recurrent treatment. The committee noted that there are safer alternatives and agreed not to recommend corticosteroids for managing acute sore throat.

No antibiotic

- In most cases, acute sore throat is a self-limiting infection, often caused by a viral infection, and most people will not need an antibiotic. Group A beta-haemolytic streptococcus (GABHS) is the most common bacterial pathogen in sore throat (European Society for Clinical

- Microbiology and Infectious Diseases Sore Throat Guideline [2012]), isolated in approximately 20% of cases (Kronman et al. 2014).

- Complications of sore throat caused by a GABHS infection are generally rare in adults and children. Complications can be suppurative (including quinsy [peri-tonsillar abscess], acute otitis media and acute sinusitis) or non-suppurative (including acute rheumatic fever and acute glomerulonephritis; European Society for Clinical Microbiology and Infectious Diseases Sore Throat Guideline [2012]).

Efficacy of antibiotics

- With antibiotics, significantly more people with acute sore throat were symptom free at days 3 and 7 compared with placebo. At day 3, 51% were symptom free with antibiotics compared with 34% with placebo (NNT 6 [range 5 to 7]). At day 7, most people in both groups were symptom free (87% versus 82%, NNT 21 [range 14 to 49]). This was based on low quality evidence from a systematic review and meta-analysis of RCTs and quasi-RCTs (Spinks et al. 2013). Overall, antibiotics shortened the duration of symptoms by about 16 hours over 7 days.

- Subgroup analyses suggest antibiotics are more effective in people with a throat swab positive for GABHS. The NNT with antibiotics compared with placebo to prevent 1 person with a negative throat swab having a sore throat on day 3 was 7 (range 5 to 12), with an NNT of about 4 (range 4 to 5) for people with a throat swab positive for GABHS (low to moderate quality evidence).

- The overall incidence of suppurative complications, including acute otitis media, acute sinusitis and quinsy (peri-tonsillar abscess), was low and based on data from older studies, mostly conducted in the 1950s. These studies found that antibiotics significantly reduced the incidence of acute otitis media and acute sinusitis within 14 days, and quinsy (peri-tonsillar abscess) within 2 months, compared with placebo (low to high quality evidence). Based on the complication rates from studies conducted after 1975, Spinks et al. (2013) estimated that 200 people would need to be treated with antibiotics to prevent 1 case of acute otitis media.

- Rheumatic fever was reported only in RCTs published before 1961, and the authors noted that the incidence has continued to decline in western societies since then. Results from these early studies found that antibiotics reduced acute rheumatic fever by more than two-thirds compared with placebo (low quality evidence).

- There was no statistically significant reduction in acute glomerulonephritis in people taking antibiotics, although it was difficult to detect a significant reduction because the absolute rates of this complication were low (less than 0.1%; very low quality evidence).

Safety of antibiotics

- Allergic reactions to penicillins occur in 1 to 10% of people and anaphylactic reactions occur in less than 0.05%. People with a history of atopic allergy (for example, asthma, eczema and hay fever) are at a higher risk of anaphylactic reactions to penicillins. People with a history of immediate hypersensitivity to penicillins may also react to cephalosporins and other beta-lactam antibiotics (BNF, November 2017). See the NICE guideline on drug allergy: diagnosis and management for more information.
- Antibiotic-associated diarrhoea is estimated to occur in 2 to 25% of people taking antibiotics, depending on the antibiotic used (NICE Clinical Knowledge Summary [CKS]: diarrhoea – antibiotic associated).
- Adverse effects were not reported by Spinks et al. (2013) because of inconsistencies in reporting these effects in the RCTs.
- See the summaries of product characteristics for information on contraindications, cautions and adverse effects of individual medicines.

Back-up antibiotics

- A back-up antibiotic prescription (either patient-led collection or delayed collection) or no antibiotic prescription was as effective as an immediate antibiotic prescription for reducing duration and severity of symptoms in people with pharyngitis. This was based on moderate quality evidence from 1 RCT in adults (de la Poza Abad et al. 2016).
- Immediate antibiotics were significantly more effective than back-up antibiotics for improving fever, pain and malaise in some RCTs from a systematic review (Spurling et al. 2013), whereas there was no difference between groups in other RCTs (low to moderate quality evidence).
- Across the RCT and systematic review there was generally no difference in adverse events between an immediate antibiotic prescription strategy and a back-up antibiotic prescription or no prescription strategy (very low to moderate quality evidence).

Identifying people more likely to benefit from antibiotics

- Targeted use of antibiotics using the FeverPAIN clinical scoring system improved symptoms on days 2 to 4 (to a statistically but possibly not clinically meaningful amount) and reduced antibiotic use, compared with a back-up antibiotic prescribing strategy alone. This was based on low to moderate quality evidence from an open-label RCT (Little et al. 2013). People in the group with a low FeverPAIN score (0 or 1 points) were not offered an antibiotic. People with a

- moderate FeverPAIN score (2 or 3 points) were offered a back-up prescription, and people with a high FeverPAIN score (4 points or more) were offered an immediate antibiotic prescription. The additional use of rapid antigen tests for GABHS in people with a high FeverPAIN score had no clear advantage over using FeverPAIN score alone.

Committee discussions on no antibiotics, back-up antibiotics and identifying people more likely to benefit from antibiotics

- Based on evidence and experience, the committee agreed that acute sore throat is a self-limiting infection, and most people will get better within a week without antibiotic treatment. Based on evidence and experience, the committee agreed that complications are rare in adults and children, and the committee noted the adverse effects associated with antibiotic use.
- The committee agreed that prescribers need to weigh up the small clinical benefits from antibiotics against their potential to cause adverse effects.
- Based on evidence and experience, the committee agreed that no or back-up antibiotic prescribing was as effective as immediate antibiotic prescribing for people with acute sore throat. A back-up antibiotic prescription could be used if symptoms deteriorate rapidly or significantly, or do not improve within the next 3 to 5 days.
- The committee discussed the clinical scoring systems available to help identify people with acute sore throat who may be more likely to benefit from antibiotics. The committee noted that FeverPAIN and Centor criteria have not been validated in a UK population.
- The committee was aware that the FeverPAIN criteria were developed in a UK primary care setting in 2013 and have not been assessed in children under 3 years. External validation has not been carried out, but the criteria have been tested in an RCT setting.
- The FeverPAIN scoring tool can help prescribers to determine if a person's sore throat is more likely to benefit from antibiotics. The scoring tool includes the FeverPAIN criteria plus additional parameters to help prescribers determine the severity of the sore throat. The additional parameters do not affect the overall FeverPAIN score. The committee was aware that the tool may help prescribers implement FeverPAIN criteria in practice and supports shared decision-making in consultations with people.
- The committee noted that the Centor criteria were developed in the US in an emergency department setting in 1981 and has only been assessed in an adult population. The committee was aware that the NICE guideline on respiratory tract infections (self-limiting): prescribing antibiotics uses Centor criteria. FeverPAIN criteria were not available at the time this guideline was published.
- The committee noted that a FeverPAIN score of 4 or 5 is thought to be associated with a 62 to 65% probability of having a bacterial infection, which is slightly higher than the 32 to

- 56% probability associated with a Centor score of 3 or 4. The committee was aware that using FeverPAIN in preference to Centor may increase the use of back-up antibiotic prescribing. However, the committee discussed that if more back-up antibiotic prescribing strategies are implemented the overall use of antibiotics may reduce, assuming that around two-thirds of people will not collect (and take) the antibiotics.
- The committee acknowledged the recommendation in the NICE guideline on respiratory tract infections (self-limiting): prescribing antibiotics for a no or back-up antibiotic prescribing strategy in acute sore throat, with an immediate antibiotic prescribing strategy also an option for people with an acute sore throat when 3 or more Centor criteria are present.
- The committee discussed FeverPAIN scores of 4 or 5, or Centor scores of 3 or 4. In some cases people may have these scores but may have milder symptoms. To ensure people with milder and improving symptoms are not issued an immediate antibiotic prescription the committee used its expertise and agreed that a back-up prescription may also be appropriate for this group of people. Withholding antibiotics is unlikely to lead to complications.
- The committee discussed FeverPAIN scores of 0 or 1, or Centor scores of 0, 1 or 2. The committee was aware that the NICE guideline on respiratory tract infections (self-limiting): prescribing antibiotics recommended either a no antibiotic or a back-up antibiotic prescribing strategy for people with these Centor scores. However, based on evidence, experience and the principles of antimicrobial stewardship the committee recommended a no antibiotic prescribing strategy for this group.
- The committee was aware that FeverPAIN criteria had not been tested in populations under 3 years and that the Centor criteria were developed in an adult population. However, the committee, using its experience, advised that young children (under 3 years) are unlikely to present with sore throat symptoms alone. Prescribers should follow the NICE guideline on fever in under 5s to assess and manage fever in this population.
- The committee agreed that there is currently uncertainty about which scoring tool is more effective in a UK population. They noted that both criteria are used in clinical practice and that using a scoring tool is preferential to not using any tool. The committee concluded that either FeverPAIN or Centor criteria should be used to identify people with acute sore throat who may be more likely to benefit from antibiotics.

Antibiotic choice

- There were no major differences in clinical effectiveness between classes of antibiotics, including penicillins, cephalosporins, macrolides, and sulfonamides in adults and children with GABHS-positive sore throat. This was based on very low to moderate quality evidence from 2 systematic reviews and meta-analyses of RCTs (Altamimi et al. 2012 and van Driel et al. 2016). Statistically significant differences were seen for some comparisons but the absolute differences between antibiotic classes was small.

- There was no significant difference in adverse events for cephalosporins, macrolides or sulfonamides compared with phenoxymethylpenicillin in 1 systematic review (van Driel et al. 2016). The other systematic review (Altamimi et al. 2012) found that a shorter course of late-generation (broader spectrum) antibiotics was associated with significantly more adverse events compared with a 10-day course of phenoxymethylpenicillin.

Frequency of antibiotic dosing

- Twice daily dosing of phenoxymethylpenicillin was as effective as 3 or 4 times daily dosing for microbiological cure in adults and children with GABHS-positive sore throat. This was based on low quality evidence from 1 systematic review and meta-analysis of RCTs (Lan and Colford 2000). Once-daily dosing was significantly less effective than 3 or 4 times daily dosing of phenoxymethylpenicillin (low quality evidence).

Committee discussions on antibiotic choice, dose and frequency of dosing

- The committee discussed that, generally, if an antibiotic is needed to treat an infection that is not life threatening, narrow-spectrum antibiotics should be used as the first choice. Indiscriminate use of broad-spectrum antibiotics is undesirable because it creates a selective advantage for bacteria resistant even to these 'last-line' broad-spectrum agents, and also kills normal commensal flora leaving people susceptible to antibiotic-resistant harmful bacteria such as *Clostridium difficile*. For infections that are not life threatening, broad-spectrum antibiotics need to be reserved for second-choice treatment when narrow-spectrum antibiotics are ineffective. Based on evidence, clinical experience and resistance data, the committee agreed to recommend **phenoxymethylpenicillin** as the first-choice antibiotic. This is a narrow-spectrum penicillin with the lowest risk of causing resistance.

- The committee discussed whether amoxicillin would be a suitable alternative to phenoxymethylpenicillin to support medicines adherence. However, it was aware of evidence that the risk of resistance to amoxicillin is significantly increased in urinary isolates of *Escherichia coli* following a course of amoxicillin. These effects are greatest in the first month after use, but are detectable for up to 12 months. Also, if the sore throat is due to glandular fever, the BNF states that erythematous rashes are common in people with glandular fever who take amoxicillin.

- The committee discussed the systematic review by Lan and Colford (2000) that suggested twice-daily dosing was as effective as four times daily dosing. The committee noted that four times daily dosing was the standard dose frequency for phenoxymethylpenicillin and the dose used most frequently in the included studies. The committee noted that this is low quality evidence, using data from only 6 studies and used bacteriological cure at follow-up as an efficacy outcome (rather than a patient-oriented outcome).

- The committee discussed the benefits and harms of using twice daily dosing of phenoxymethylpenicillin. Twice daily dosing would support medicines adherence in those people who may struggle to take 4 doses at 6-hourly intervals before food, such as children at school. The committee was concerned that if a twice daily dose was used, phenoxymethylpenicillin levels may fall below the minimum inhibitory concentration. However, they also discussed that streptococci are highly sensitive to phenoxymethylpenicillin, and that antibiotic penetration in sore throat tissue is good, therefore even small concentrations of antibiotic will treat the infection.

- Based on evidence and clinical experience, the committee agreed that if phenoxymethylpenicillin was prescribed, twice daily or four times a day dosing could be

- used, providing the same total daily dose was given.
- Based on evidence, clinical experience and resistance data, the committee agreed to recommend the following alternative first-choice antibiotics for use in penicillin allergy or for phenoxymethylpenicillin intolerance: **clarithromycin** or **erythromycin** (which is preferred in pregnancy), which are macrolides, given at usual doses.
- Based on the evidence that there are no major differences in clinical effectiveness between classes of antibiotics, the committee used its experience to agree that the choice should largely be driven by minimising the risk of resistance.

Antibiotic course length

- In people with GABHS-positive sore throat, treatment with phenoxymethylpenicillin for 5 to 7 days had significantly lower microbiological cure rates compared with 10 days treatment (NNT 13 [range 8 to 37]). This was based on low quality evidence from 1 systematic review and meta-analysis of RCTs (Falagas et al. 2008).
- There were no significant differences between 5 to 7 days treatment with phenoxymethylpenicillin compared with 10 days treatment, in the rate of relapse or recurrence (very low quality evidence).
- The studies that compared different course lengths of phenoxymethylpenicillin treatment did not report on adverse events.

Committee discussions on antibiotic course length

- The committee agreed that, when an antibiotic is appropriate, the shortest course that is likely to be effective should be prescribed to reduce the risk of antimicrobial resistance and minimise the risk of adverse effects.
- The committee noted that most studies involving clarithromycin or erythromycin used a 5-day course, whereas, most studies involving phenoxymethylpenicillin used a 10-day course.
- The committee noted that no studies were identified that compared 10-day and 5-day courses of phenoxymethylpenicillin given at the current recommended dose (500 mg four times daily). However, the committee was aware from its experience that many people do not complete a 10-day course.
- Based on evidence, the committee recognised that microbiological cure may be better with a 10-day course of phenoxymethylpenicillin compared with a 5- or 7-day course, although there were no differences in relapse or recurrence. They agreed that, in situations where bacterial eradication is not specifically needed, and where symptomatic cure is the goal, if a decision to prescribe an antibiotic is made, a shorter course of phenoxymethylpenicillin may be sufficient. However, in situations where there is recurrent infection, a 10-day course may increase the likelihood of microbiological cure.
- Based on evidence, clinical experience and resistance data, the committee agreed that when an antibiotic was appropriate, a 5- to 10-day course of phenoxymethylpenicillin was needed.
- The committee was aware that bottles of phenoxymethylpenicillin suspension expire within 7 days once reconstituted and a second bottle would be needed to complete a 10-day course. Prescribing a 7-day course may help with medicines adherence.
- A 5-day course of clarithromycin or erythromycin (which is preferred in pregnancy) is an alternative for people with penicillin allergy or intolerance. This course length takes into account the overall efficacy and safety evidence for antibiotics, and minimises the risk of resistance.

See the full evidence review for more information.

Other considerations

Medicines adherence

- Medicines adherence may be a problem for some people with medicines that require frequent dosing or longer treatment duration (for example, antibiotics). See the NICE guideline on medicines adherence.

Resource implications

- Respiratory tract infections, including acute sore throat, are a common reason for consultations in primary care, and therefore are a common reason for potential antibiotic prescribing. In a 2011 survey of UK primary care (Gulliford et al. 2014), consultations for 'sore throat' accounted for 27% of all consultations for respiratory tract infections, and the median practice issued an antibiotic prescription for 60% of these.
- There is potential for resource savings if a no antibiotic or a back-up antibiotic prescription strategy is used. One open-label RCT (de la Poza Abad et al. 2016) found significantly lower rates of antibiotic collection in the delayed collection prescription group (26.0%, $p<0.001$) and patient-led back-up prescription group (34.7%, $p<0.001$) compared with the immediate prescription group (89.1%, low quality evidence).
- Recommended antibiotics are all available as generic formulations, see Drug Tariff for costs.

Terms used in the guideline

People with a sore throat caused by streptococcal bacteria are more likely to benefit from antibiotics. FeverPAIN or Centor criteria are clinical scoring tools that can help to identify the people in whom this is more likely.

FeverPAIN criteria

- Fever (during previous 24 hours)
- Purulence (pus on tonsils)
- Attend rapidly (within 3 days after onset of symptoms)
- Severely Inflamed tonsils
- No cough or coryza (inflammation of mucus membranes in the nose)

Each of the FeverPAIN criteria score 1 point (maximum score of 5). Higher scores suggest more severe symptoms and likely bacterial (streptococcal) cause. A score of 0 or 1 is thought to be associated with a 13 to 18% likelihood of isolating streptococcus. A score of 2 or 3 is thought to be associated with a 34 to 40% likelihood of isolating streptococcus. A score of 4 or 5 is thought to be associated with a 62 to 65% likelihood of isolating streptococcus.

Centor criteria

- Tonsillar exudate
- Tender anterior cervical lymphadenopathy or lymphadenitis
- History of fever (over 38°C)
- Absence of cough

Each of the Centor criteria score 1 point (maximum score of 4). A score of 0, 1 or 2 is thought to be associated with a 3 to 17% likelihood of isolating streptococcus. A score of 3 or 4 is thought to be associated with a 32 to 56% likelihood of isolating streptococcus.

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Accreditation

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2.	هل تم استخدام معايير Fever PAIN عند المرضى المرشحين لاستخدام الصادات؟ a. حمى - قيح - تطور سريع - ترافق مع سعال			
3.	هل تم استخدام معايير Centor عند المرضى المرشحين لاستخدام الصادات؟ a. نتحة قيحية - ضخامات عقدية - حمى - غياب السعال			
4.	هل تم وصف الصادات للمرضى الذين يحققون نتيجة 0 –1 على معايير FeverPAIN أو نتيجة 0 – 1- 2 على معايير Centor؟			
5.	هل تم تدبير الأعراض؟ a. ألم - حمى - إسهال			
6.	هل تم تثقيف المريض بضرورة المراجعة في حال تطور الأعراض بشكل سريع أو عدم تحسنها خلال 3 – 5 أيام؟			
7.	هل تم تحري وجود أمراض مرافقة قد تؤدي لحدوث اختلاطات خطيرة؟			
8.	هل تم قبول المريض في المشفى ؟			
9.	هل تم وصف علاجات موضعية؟ a. مضامض - مطهرات فموية			
10.	هل تم وصف صاد حيوي مناسب لعمر المريض؟			

الجمهورية العربية السورية القيادة العامة للجيش والقوات المسلحة إدارة الخدمات الطبية العسكرية مستشفى تشرين العسكري الرقم: التاريخ: / /	استمارة التدقيق السريري	

11.	هل تم وصف استيروئيدات قشرية؟			

الطبيب الاخصائي:

الطبيب المقيم: