
Sore Throat (Interim Guidance)

This monograph supports the Community Pharmacy Sore Throat Test and Treat (STTT) additional clinical service.

- Symptomatic treatment for sore throat may be provided under the Common Ailments Scheme (see text in black)
- **Antibiotic therapy may only be provided by STTT accredited Pharmacists (see additional text in blue)**

About the ailment

Acute sore throat is a symptom of an underlying condition and should be accurately diagnosed before considering treatment. It is self-limiting and often triggered by a viral infection of the upper respiratory tract. Symptoms can last for around a week, but most people will get better within this time without antibiotics, regardless of cause.¹ Antibiotics for streptococcal sore throat decrease symptom duration by around 16 hours, however are indicated in some situations.^{2,3}

Sore throat is often associated with the common cold. It may also be a symptom of influenza or of infectious mononucleosis (glandular fever). Sore throat caused by glandular fever may take longer to resolve (usually within 1–2 weeks), with associated lethargy continuing for some time afterwards. The most common bacterial cause of sore throat is Group A beta-haemolytic streptococcus (GABS). Non-infectious causes of sore throat are uncommon and include physical irritation from gastro-oesophageal reflux disease or chronic cigarette smoke, and hayfever.²

In addition to soreness on swallowing, individuals may experience:^{2,3,4,5}

- a dry, scratchy throat
- bad breath
- swollen neck glands
- headache, malaise, rhinitis and cough
- nausea, vomiting and abdominal pain — may be present in children with pharyngitis, and people with tonsillitis
- hoarseness if there is laryngeal involvement
- fever (common in pharyngitis and tonsillitis)

Possible complications

A sore throat may result in significantly reduced fluid intake, which may lead to dehydration. For babies and young children, the number of wet nappies and whether fluid intake is significantly reduced (50 to 75% normal volume) should be considered. The child should be examined for signs of clinical dehydration (reduced skin turgor and/or a capillary refill time of more than three seconds, and/or dry mucous membranes).²

Additional complications include:

- Otitis media (most common) - NNT with antibiotics > 200 to prevent one case
- Peri-tonsillar abscess (quinsy) - NNT with antibiotics > 4000 to prevent one case
- Acute sinusitis
- Parapharyngeal (deep neck) abscess
- Cervical adenitis (neck lymph node inflammation)
- Mastoiditis (a serious bacterial infection that affects the mastoid bone behind the ear; more common in children and requires immediate specialist assessment)
- Epiglottitis (cartilage covering windpipe swells and blocks flow of air into lungs, can be fatal)
- Scarlet fever (notifiable disease)
- Streptococcal toxic shock syndrome (rare)
- Lemierre's syndrome (rare - acute septicaemia and jugular vein thrombosis secondary to infection with *Fusobacterium* spp.)
- Rheumatic fever (rare in developed countries but still quite prevalent in developing countries)
- Post-streptococcal glomerulonephritis
- Guttate psoriasis - may flare up in the presence of a streptococcal infection

Refer to A&E

- Difficulty breathing
- Severe symptoms, getting worse quickly, signs of sepsis or systemically very unwell/severe pain
- Stridor
- Drooling/ difficulty swallowing or opening mouth
- Muffled voice
- Confusion, drowsiness or slurred speech
- Systemically unwell and at risk of immunosuppression

Refer to GP/NHS 111 for same day assessment

- Immunocompromised (due to medical condition or immunosuppressant medicine e.g. cancer treatment, high dose steroids, consider also medicines that can cause idiosyncratic neutropenia e.g. carbimazole)
- Dehydrated or unable to take fluids
- Abnormal breathing (with no difficulty breathing)
- Rash, flushed cheeks and swollen tongue could be a sign of scarlet fever. This normally occurs in children, but can occur at any age.
- Persistently high temperature over 38°C uncontrolled by paracetamol or ibuprofen
- Skin changes – very cold, or a strange colour or rash develop
- Suspected rare cause such as Kawasaki disease, diphtheria or yersinia pharyngitis
- Chest pain (consider emergency referral)
- Coughing up blood
- Severe oral mucositis
- Peri-tonsillar abscess
- Peri-tonsillar cellulitis
- Severe headache and vomiting
- High risk of serious complications because of pre-existing comorbidity including:
 - significant heart disease (including valvular heart disease)
 - history of rheumatic fever
 - uncontrolled diabetes
 - lung, renal, liver or neuromuscular disease
 - cystic fibrosis
- Systemically unwell where the STTT extended service is not available

Refer to GP for routine assessment

Persistent symptoms that haven't improved after 7 days. Refer sooner if symptoms worsen.

- Sore throat after 7 days with lethargy may indicate glandular fever, especially if 15 to 25 years old
- Repeated episodes (5 or more) per year or a lower threshold if other concerns

STTT additional clinical service

- Significant drug interaction with antibiotics where treatment is indicated
- Patient meets an exclusion criterion for provision of the service, where antibiotics are likely to be beneficial (systemically unwell and FeverPAIN 4 or 5/Centor 3 or 4) (see below)

Assessment and overview of treatment

Symptom relief

Paracetamol or ibuprofen can be supplied to help ease pain and fever.

Medicated lozenges containing a local anaesthetic and NSAID or an antiseptic agent may help pain in adults.

Antibiotic treatment via the STTT extended service pathway

Assessment of the person is required to ensure appropriate antimicrobial management. Differentiating a viral sore throat from that caused by GABS on the basis of examination is difficult. The Centor or FeverPAIN criteria should be used along with examination of the person to determine the likelihood of streptococcal infection (and therefore the need for antibiotic treatment).²

The Centor Criteria is scored out of 4 depending on how many of the following are present:

1. Tonsillar exudate
2. Tender anterior cervical lymph nodes
3. Absence of cough
4. History of fever

The FeverPAIN score is scored out of 5 depending on how many of the following are present:

1. Fever in the last 24 hours
2. Purulent tonsils
3. Attend rapidly (patient attended within 3 days of the onset of symptoms)
4. Severely inflamed tonsils
5. No cough or coryza

Centor Score of 0, 1 or 2; or a FeverPAIN score of 0 or 1

- Excluded from PGD for antibiotic supply. Do not offer antibiotics² or RADT.
- Refer to the Advice for Patients section below.

FeverPAIN score of 2 or 3

- Consider if the patient is likely to benefit from antibiotic treatment and, where this is the case, carry out a RADT.
- If the patient is less likely to benefit from antibiotics, provide symptomatic treatment and give advice on actions to take if symptoms worsen (see Advice for Patients section below).

FeverPAIN score of 2 or 3 with a positive RADT result for Strep A

- Watch and wait if practical
 - Advise the person to return to the pharmacy for reassessment if symptoms fail to improve over the next 48 hours.
 - Advise seeking advice from GP or A & E if the person becomes systemically very unwell.²
 - Refer to the Advice for Patients section below.
- Consider supplying antibiotic with advice, depending on clinical condition; bearing in mind other circumstances (e.g. weekend/bank holiday), the unlikely event of complications if antibiotics are not taken and possible adverse effects.²

- Consider providing a delayed antibiotic supply to start if symptoms do not improve or worsen over the next 2-3 days.²
- Provide advice
 - Advise the person (including those to whom a delayed supply has been given if practical) to return to the pharmacy if symptoms fail to improve over the next 48 hours for reassessment.
 - Advise seeking advice from GP or A & E if the person becomes systemically very unwell.²
 - Refer to the Advice for Patients section below.

Centor score of 3 or 4; or a FeverPAIN score of 4 or 5 with a POSITIVE RADT result for strep A

- If the person is not systemically very unwell; not showing signs of a more serious condition; and not at high risk of complications:
 - Consider supplying antibiotic with advice, depending on clinical condition; bearing in mind other circumstances (e.g. weekend/bank holiday), the unlikely event of complications if antibiotics are not taken and possible adverse effects.²
 - If antibiotics are not supplied
 - Advise the person to return to the pharmacy if symptoms fail to improve over the next 48 hours for reassessment.
 - Advise seeking advice from GP or A & E if the person becomes systemically very unwell.
 - Advise the person to seek medical help if symptoms worsen rapidly or significantly or if they become systemically very unwell.²
- If the person is systemically very unwell or showing signs of a more serious condition or at high risk of complications:
 - Check referral criteria and refer immediately as appropriate.

Negative RADT test

- Reassure the patient that the sore throat is not likely to be bacterial and therefore antibiotics will be unlikely to help.
- If there is symptom worsening, or new symptoms return for assessment.
- Advise seeking advice from GP or A & E if the person becomes systemically very unwell.²

Refer to the Advice for Patients section below.

Treatments						
Analgesia	Paracetamol			Ibuprofen		
Generic name	Paracetamol 120mg in 5ml sugar-free oral suspension	Paracetamol 250mg in 5ml sugar-free oral suspension	Paracetamol 500mg tablets	Ibuprofen 100 mg in 5 ml sugar-free oral suspension	Ibuprofen 200 mg tablets	Ibuprofen 400 mg tablets
Legal class	P	P	P	P	P	P
Pack Size	100ml	200ml	32	100ml	24	24
Maximum number of packs to supply per episode	1	1	1	1	1	1
Maximum number of packs to supply per annum	2	2	2	2	2	2
Dosing instructions	As per pack	As per pack	As per pack	As per pack	As per pack	As per pack
Key information to consider prior to supply	<ul style="list-style-type: none"> First-line for children or for adults who cannot tolerate ibuprofen. Not indicated for children < 3 months old. A maximum of 1 x 200 ml paracetamol 250 mg in 5 ml sugar free suspension may be supplied for children over 12 years who are unable to take paracetamol tablets. 			<ul style="list-style-type: none"> First-line in adults (may be more effective in adults at relieving symptoms) if not contraindicated, and second-line in children. Not indicated for children < 3 months old. Caution in children at risk of dehydration. Contraindications to NSAIDs include: heart failure, hypertension, ischaemic heart disease, peripheral arterial disease, cerebrovascular disease, renal impairment and peptic ulceration; caution in asthma. NSAIDs with low dose aspirin may increase the risk of gastrointestinal side effects; avoid if possible. If gastro-protection is required consider supplying paracetamol instead. Avoid using ibuprofen with warfarin/anticoagulants. 		
Counselling advice	If taking paracetamol regularly and on warfarin, advise INR test 5 to 7 days later.			Take with or after food		

Antibiotics – First line (if there is no penicillin allergy)					
	Phenoxyethylpenicillin		Amoxicillin (if phenoxyethylpenicillin not available)		
Formulation	250mg tablets	250mg in 5ml oral solution sugar free	500mg capsules	250mg/5ml oral suspension	500mg/5ml oral suspension
Legal class	POM (supply via PGD by pharmacists accredited for STTT)				
Amount to supply	40 or 80	Appropriate quantity for 10 days (see PGD)	30	Appropriate quantity for 10 days (see PGD)	Appropriate quantity for 10 days (see PGD)
Suggested maximum number of episodes per year	2	2	2	2	2
Dosing instructions	Treatment course is for 10 days <ul style="list-style-type: none"> • 250 mg four times daily in those aged 6 to 11 years • 500 mg four times daily in those aged over 12 		Treatment course is for 10 days One capsule three times a day.	Treatment course is for 10 days 500mg (TWO 5mL spoonful) three times a day.	Treatment course is for 10 days 500mg (ONE 5mL spoonful) three times a day.
Counselling Advice	Swallow tablets whole with water. Take on an empty stomach (an hour before food or 2 hours after food) ⁶ . Common adverse effects include diarrhoea, nausea, fever, hypersensitivity reactions, joint pain. ² Take regularly four times a day. Complete the prescribed course. If the tablets need to be given as liquid form, refer to the WMAS advice on using solid dosage forms of antibiotics when liquid formulations are not available .		Space the doses evenly throughout the day. Complete the prescribed course. Note that Individuals, particularly adolescents with concurrent infection with Glandular fever/Epstein-Barr virus (EBV) have an increased frequency of amoxicillin associated skin rashes. If the capsules need to be given as liquid form, refer to the WMAS advice on using solid dosage forms of antibiotics when liquid formulations are not available .		

Antibiotics – Second Line							
	Clarithromycin (if penicillin allergic – not suitable in pregnancy or breast feeding)			Erythromycin (if penicillin allergic and pregnant or breast feeding or first line options and clarithromycin are not available)			
Formulation	500mg tablets	125mg in 5ml oral suspension	250mg in 5ml oral suspension	250mg tablets g/r	500mg tablets	250mg in 5ml	500mg in 5ml
Legal class	POM (supply via PGD by pharmacists accredited for STTT)						
Amount to supply	10	Appropriate quantity for 5 days (see PGD)	Appropriate quantity for 5 days (see PGD)	40	20	Appropriate quantity for 5 days (see PGD)	Appropriate quantity for 5 days (see PGD)
Suggested maximum number of episodes per year	2	2	2	2	2	2	2
Dosing instructions	Over 12 years: 500mg twice daily for 5 days	Body weight/age	Dose	6-7 years: 250mg four times a day for 5 days 8 years old and over: 500mg four times a day for 5 days			
		12-19 kg over 6 years	125 mg twice daily				
		20- 29 kg over 6 years	187.5 mg twice daily				
		30- 40 kg over 6 years	250 mg twice daily				
		Age over 12 years	500 mg twice daily				
Treatment course is for 5 days							
Counselling Advice	<p>Swallow tablets whole with water. Can be taken with or after food. Nausea, vomiting, abdominal discomfort, and diarrhoea are the most common adverse effects of macrolides.² Space the doses evenly throughout the day. Keep taking this medicine until the course is finished, unless you are told to stop. Complete the prescribed course. If the tablets need to be given as liquid form, refer to the WMAS advice on using solid dosage forms of antibiotics when liquid formulations are not available.</p>						

General advice for patients

- Colds, most coughs, sinusitis, ear infections, sore throats, and other infections often get better without antibiotics, as your body can usually fight these infections on its own.⁷ Sore throat usually gets better within 7 days, with or without antibiotics.⁴
- Taking antibiotics makes bacteria that live inside your body more resistant so the antibiotics may not work when you really need them.⁷
- Antibiotics can cause side effects such as rashes, thrush, stomach pains, diarrhoea, reactions to sunlight, other symptoms, or being sick.⁷
- **Provide information leaflet from the TARGET [Respiratory tract infection resource suite: Patient facing materials \(rcgp.org.uk\)](https://www.rcgp.org.uk/respiratory-tract-infection-resource-suite-patient-facing-materials).**

If antibiotics are not supplied

- Return to the pharmacy if symptoms do not improve after 7 days (48 hours if FeverPAIN score of 2 or more; or Centor score of 3 or more), or earlier if symptoms worsen.
- Seek advice from GP or A & E if the person becomes systemically very unwell.²
- Advise on criteria for urgent medical advice below.

If antibiotics are supplied via STTT extended service

- Seek advice from GP if symptoms worsen or do not improve within 3-4 days; seek advice from GP or A&E if the person becomes systemically very unwell.²
- Advise on criteria for urgent medical advice below.

Over the counter treatments

- Some people find medicated lozenges containing a local anaesthetic and NSAID or antiseptic useful.
- There is little evidence for benzydamine gargles /spray.^{2,3}
- There is no evidence for zinc lozenges, herbal remedies or acupuncture.^{2,3,5}
- Adults and older children may find sucking hard sweets, ice cubes or ice lollies provide symptomatic relief.⁴
- Adults can try a warm saline gargle (half a teaspoon of salt in a glassful of warm water at frequent intervals), but do not swallow. This is not suitable for young children.⁴

Lifestyle

- Rest and take simple painkillers at regular intervals to relieve pain and fever.^{4,5}
- Avoid smoking and smoky environments.⁴
- If you have a high temperature or you do not feel well enough to do your normal activities, try to stay at home and avoid contact with other people until you feel better.⁴
- Drink plenty of water to avoid dehydration.⁴
- Eat cool and soft foods.⁵ Hot drinks should be avoided as these can exacerbate pain.²
- Children may return to school or day care after fever has resolved and they are no longer feeling unwell, and/or after taking antibiotics for at least 24 hours.²

Advise the patients to seek urgent medical advice if there is^{4,5,7}:

- Difficulty breathing/speaking or stridor
- Drooling/difficulty swallowing
- Muffled voice
- Skin changes – very cold, or a strange colour or rash develop
- Confusion, drowsiness or slurred speech
- Severe headache and sickness
- Severe pain or feeling a lot worse
- Inability to swallow adequate fluids or passing little to no urine
- Chest pain
- Coughing up blood

Sore Throat Test & Treat (STTT) Summary

V1 September 2022 – to be used in conjunction with STTT Monograph and PGDs 22/23

Introduction: STTT summary page to support management of sore throat by accredited community pharmacists.

FeverPAIN Score

1 point for each, max. 5:

Fever

Purulence

Attend within 3 days or less

Inflamed tonsils

No cough or coryza

Centor Score

1 point for each, max. 4:

1. Tonsillar exudate
2. Tender anterior cervical lymph nodes
3. History of fever >38°C
4. No Cough

FeverPAIN
Score 0 -1
Or
Centor Score
0-2

NO Point of Care test (RADT)
Do not offer antibiotics

If no RADT:

- Return in 7 days for reassessment if symptoms have not improved; sooner if they worsen
- Seek medical help if symptoms worsen or person becomes very unwell

FeverPAIN
Score 2-3

Advise Point of Care testing (RADT).
Consider antibiotics if positive

If RADT is negative:

- Return for reassessment if there are new symptoms or if symptoms have worsened
- Seek medical help if symptoms worsen rapidly or person becomes very unwell

FeverPAIN
Score 4-5
Or
Centor Score
3-4

If RADT is positive:

- Supply antibiotics if clinically appropriate
- If antibiotics are not supplied, advise return in 48 hours for reassessment if symptoms have not improved
- Seek medical help if symptoms worsen rapidly or person becomes very unwell

Reassess at any time if symptoms worsen

Consider

- Alternative diagnoses
- Signs/symptoms of more serious illness
- Previous antibiotic use leading to resistance

Refer rapid/significant worsening for medical advice

Refer to GP or Out of hours if the person:

- Is systemically unwell, or
- Has signs of more serious illness, or
- Has high risk of complications

Refer to hospital if there are:

- Signs of severe systemic infection
- Severe complications

Antibiotic use

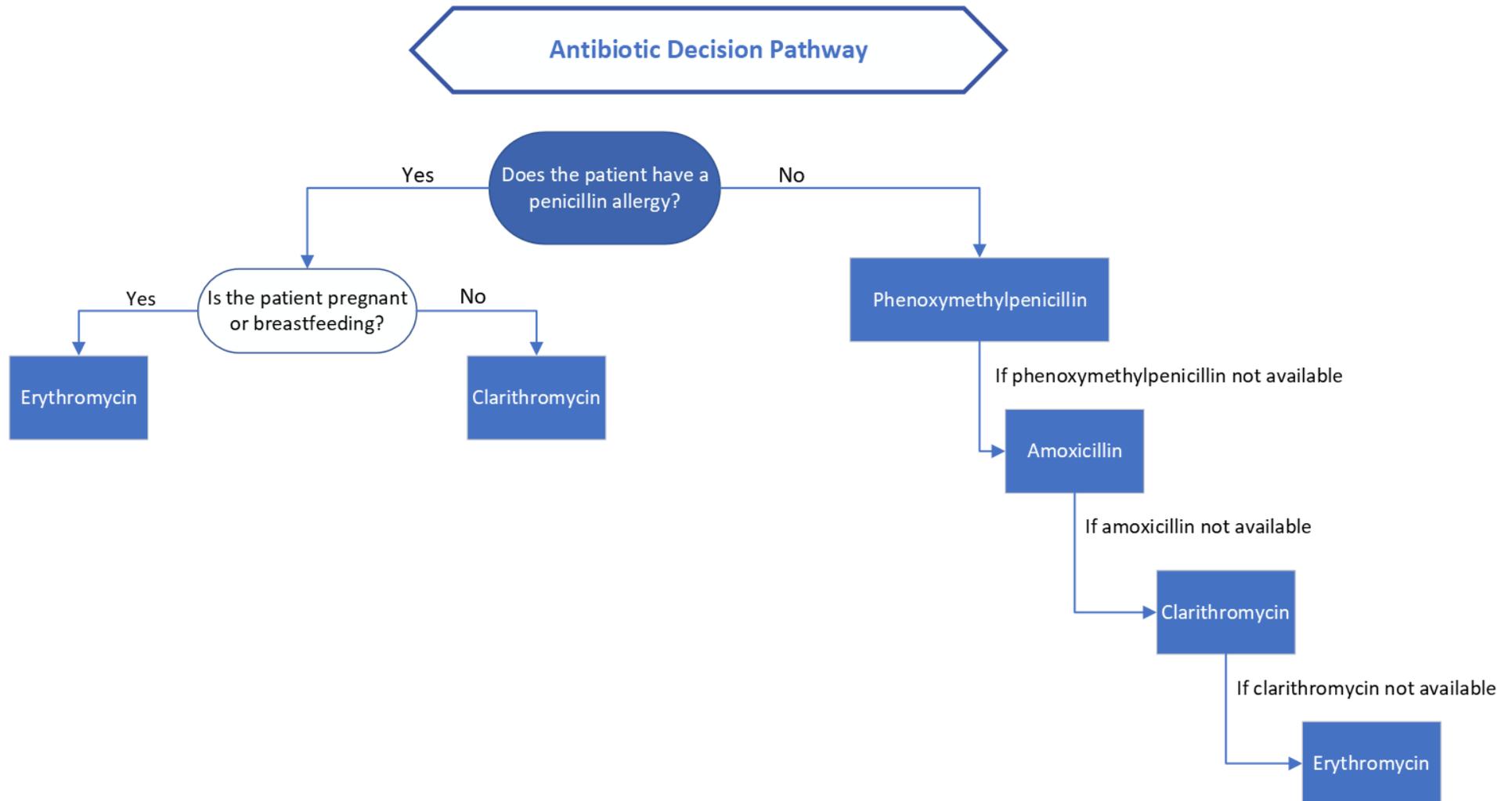
- Antibiotics make little difference to how long symptoms last or the number of people whose symptoms improve
- Withholding antibiotics is unlikely to lead to complications
- Possible adverse affects include nausea and diarrhoea

Self-Care Advice

- Consider paracetamol for pain and/or fever
- Can use ibuprofen if appropriate
- Medicated lozenges may reduce pain in adults

Summary information from:

NICE guideline [NG84]: Sore throat (acute): antimicrobial prescribing. 2018. Available at: <https://www.nice.org.uk/guidance/ng84>. Accessed Sept 2022.



References

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