Complete Summary

GUIDELINE TITLE
Systemic lupus erythematosus (SLE).

BIBLIOGRAPHIC SOURCE(S)

GUIDELINE STATUS
This is the current release of the guideline.


** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT
Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory information has been released.

On April 7, 2005, the U.S. Food and Drug Administration (FDA) asked manufacturers of non-prescription (over the counter [OTC]) non-steroidal anti-inflammatory drugs (NSAIDs) to revise their labeling to include more specific information about potential gastrointestinal (GI) and cardiovascular (CV) risks, and information to assist consumers in the safe use of the drugs. See the FDA Web site for more information.

Subsequently, on June 15, 2005, the FDA requested that sponsors of all NSAIDs make labeling changes to their products. FDA recommended proposed labeling for both the prescription and OTC NSAIDs and a medication guide for the entire class of prescription products. See the FDA Web site for more information.

COMPLETE SUMMARY CONTENT

** REGULATORY ALERT **

SCOPE

DISEASE/CONDITION(S)
Systemic lupus erythematosus (SLE)

GUIDELINE CATEGORY
Diagnosis
Treatment

CLINICAL SPECIALTY
Family Practice
Internal Medicine
Rheumatology

INTENDED USERS

Health Care Providers
Physicians

GUIDELINE OBJECTIVE(S)

Evidence-Based Medicine Guidelines collects, summarizes, and updates the core clinical knowledge essential in general practice. The guidelines also describe the scientific evidence underlying the given recommendations.

TARGET POPULATION

Patients with or suspected to have systemic lupus erythematosus (SLE)

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis

1. Assessment of clinical features
2. Laboratory evaluation (blood count, platelets, sedimentation rate, anti-nuclear antibodies, dipstick test of the urine and urinalysis)
3. American Rheumatism Association (ARA) classification
4. Referral to a specialist, as indicated, for evaluation

Treatment

1. Individualized treatment depending on the manifestations and activity of the disease
2. Patient education: avoidance of sunbathing, use of sunscreens
3. Pharmacologic therapy (nonsteroidal anti-inflammatory drugs, hydroxychloroquine, corticosteroids, immunosuppressive drugs e.g. azathioprine, cyclophosphamide, methotrexate)
4. Other drugs as indicated, such as antihypertensive treatment
5. Treatment of discoid lupus with fluorocinonide cream, hydrocortisone cream, hydroxychloroquine, or acitretin (considered, but not specifically recommended)
6. Referral to nephrologist for signs of renal manifestations

MAJOR OUTCOMES CONSIDERED

- Risk of relapse
- Risk for mortality
- Risk for end-stage renal disease
- Degree of clearing/improvement of discoid lupus
- Lupus signs and symptoms

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The evidence reviewed was collected from the Cochrane database of systematic reviews and the Database of Abstracts of Reviews of Effectiveness (DARE). In addition, the Cochrane Library and medical journals were searched specifically for original publications.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence
A. Strong research-based evidence. Multiple relevant, high-quality scientific studies with homogeneous results.
B. Moderate research-based evidence. At least one relevant, high-quality study or multiple adequate studies.
C. Limited research-based evidence. At least one adequate scientific study.
D. No research-based evidence. Expert panel evaluation of other information.

METHODS USED TO ANALYZE THE EVIDENCE
- Review of Published Meta-Analyses
- Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE
- Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS
- Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS
- Not applicable

COST ANALYSIS
- A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION
- Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION
- Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS
The levels of evidence (A–D) supporting the recommendations are defined at the end of the “Major 
Recommendations” field.

Definition
- Systemic lupus erythematosus (SLE) is a syndrome characterized by clinical diversity, changes in the disease activity over time, and by aberrant immunological findings.

Epidemiology
- The prevalence of SLE worldwide is 4 to 250 per 100,000. The incidence is most frequent in women aged 15 to 25 years.

Clinical Presentation
- The clinical presentation varies between different patients, and in a single patient the disease activity varies over time.
- General symptoms such as fatigue and fever are common.
- A vast majority of the patients have arthralgia, mostly of the hands.
- About one-half of the patients have cutaneous features, such as butterfly rash and discoid lupus as well as photosensitivity.
- About one-third of the patients have oral ulcerations.
- About 50% of the patients have nephropathy, which varies from mild proteinuria and microscopical hematuria to end-stage renal failure.
- About 20 to 40% of the patients have pleurisy. Acute pneumonitis and chronic fibrotising alveolitis are relatively rare.
- Pericarditis is somewhat more uncommon than pleuritis. T-wave changes in the electrocardiogram (ECG) are usual.
- Depression and headache are the most common of the neuropsychiatric symptoms. Generalized tonic-clonic seizures and organic psychoses are rare. Peripheral neuropathy is observed in about 10% of the patients and as many patients get a thromboembolic or haemorrhagic complication of the brain.
The lymph nodes may enlarge especially when the disease is active. There is a risk of first and second trimester foetal losses and of premature birth.

**Laboratory Findings**

- Laboratory findings are diverse.
- Erythrocyte sedimentation rate (ESR) is usually elevated; the C-reactive protein (CRP) value is often normal.
- Mild or moderate anaemia is common. A clear-cut haemolytic anaemia is seen in less than 10% of the patients.
- Leucocytopenia (lymphocytopenia)
- Mild thrombocytopenia
- Antinuclear antibodies are found in over 90% of the patients.
- Anti-deoxyribonucleic acid (DNA) antibodies (in 50 to 90% of the patients)
- Polyclonal hypergamma globulinaemia
- Decreased complement values (C3 and C4)
- Antiphospholipid antibodies
- Proteinuria, microscopic hematuria, decreased creatinine clearance

**Diagnosis**

- There is no single symptom or finding that is sufficient in itself for making the diagnosis.
- When SLE is suspected, the basic laboratory investigations are:
  - Blood count
  - Platelets
  - Erythrocyte sedimentation rate
  - Anti-nuclear antibodies
  - Dipstick test of the urine and urinalysis
- The diagnosis is based on the clinical symptoms and the laboratory findings and on the American Rheumatism Association (ARA) classification criteria (1982).
- The patient should be referred to a specialist for confirmation of the diagnosis.

**Treatment**

- The treatment is always individual and depends on the manifestations and activity of the disease. There is no need for treatment solely on the basis of the immunological findings.
- The patients should be encouraged to refrain from sunbathing and to use sunscreens.
- The most important drugs are:
  - Nonsteroidal anti-inflammatory drugs
  - Corticosteroids
  - Immunosuppressive drugs (e.g., azathioprine, cyclophosphamide, methotrexate)
- Hydroxychloroquine and nonsteroidal anti-inflammatory drugs are used in the treatment of mild symptoms such as cutaneous manifestations and arthralgia. When the response is insufficient or when the patient has fatigue or fever, a low dose of corticosteroids (prednisolone 5 to 7.5 mg/day) can be added.
- In the treatment of pleuritis or pericarditis, larger amounts of corticosteroids (about 30 mg prednisolone per day) are used.
- In the treatment of severe central nervous system (CNS) symptoms and of severe glomerulonephritis, thrombocytopenia, and haemolytic anaemia, large corticosteroid doses and other immunosuppressive drugs are used (Ransal & Beto, 1997; Flanc et al., 2004) [A].
- The differential diagnosis between an infection and a flare of the SLE is of utmost importance.
- Other drugs that the patient might need, such as antihypertensive treatment, should be remembered.
- If there are signs of renal manifestations, the patient should be referred to a nephrologist for a renal biopsy.
- The patients are often allergic to a variety of antibiotics, especially sulfonamides.

**Primary Antiphospholipid Syndrome**

- A syndrome manifesting as recurrent venous or arterial thrombotic events, recurrent miscarriages, thrombocytopenia, and antiphospholipid antibodies, but without other features of SLE

**Related Evidence**

- Fluocinonide cream is more effective than hydrocortisone for discoid lupus erythematosus (Jessop, Whitelaw,
& Jordaan, 2002) [C]. Hydroxychloroquine and acitretin are as effective.

**Definitions:**

**Levels of Evidence**

A. Strong research-based evidence. Multiple relevant, high-quality scientific studies with homogeneous results.
B. Moderate research-based evidence. At least one relevant, high-quality study or multiple adequate studies.
C. Limited research-based evidence. At least one adequate scientific study.
D. No research-based evidence. Expert panel evaluation of other information.

**CLINICAL ALGORITHM(S)**

None provided

**EVIDENCE SUPPORTING THE RECOMMENDATIONS**

**REFERENCES SUPPORTING THE RECOMMENDATIONS**

References open in a new window

**TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS**

Concise summaries of scientific evidence attached to the individual guidelines are the unique feature of the Evidence-Based Medicine Guidelines. The evidence summaries allow the clinician to judge how well-founded the treatment recommendations are. The type of supporting evidence is identified and graded for select recommendations (see the "Major Recommendations" field).

**BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS**

**POTENTIAL BENEFITS**

- Effective and safe treatment of systemic lupus erythematosus (SLE)
- Appropriate specialist referral

**POTENTIAL HARMs**

Risk of Relapse

Discontinuing hydroxychloroquine medication in stable systemic lupus erythematosus (SLE) increases the risk of relapse.

**IMPLEMENTATION OF THE GUIDELINE**

**DESCRIPTION OF IMPLEMENTATION STRATEGY**

An implementation strategy was not provided.

**INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES**

**IOM CARE NEED**

Getting Better
Living with Illness

**IOM DOMAIN**

Effectiveness
Patient-centeredness
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