DICAS DE USO
Micromedex
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Agenda

- O que é o Micromedex
- Medicamentos
- Interações Medicamentosas
- Compatibilidade IV
- Neonatologia/Pediatria
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O que é o Micromedex

- **Sistema de Suporte à Decisão Clínica**
  - Base de conhecimento com informações de medicamentos, doenças, exames laboratoriais, toxicologia e medicina alternativa.

- **Ferramenta da Saúde Baseada em Evidências e Segurança do Paciente**
Dicas básicas para usar o Micromedex Online
Lição número 1

- “Fuçem” a base
Abas, barra de busca e Recursos
As 3 principais bases

- É possível buscar informações especificamente em cada base
Atenção aos links laterais e abas de Respostas Rápidas e Aprofundadas
Todos os Resultados traz uma lista de documentos com o termo buscado
Lição número 2

- Tudo que está em azul é “clicável” e oferece um link para outra base ou informação adicional

Sepsis

**Diagnostic Testing**

**Tests**

- **Suspected and known sepsis** [4][1][2] [show details and secondary tests]
- **Complete blood count with white cell differential, manual**
  - **Strength of Recommendation:** Class I
  - **Strength of Evidence:** Category C

**Results**

The WBC count in sepsis is usually increased (>12,000/microL), but may be decreased (<4000/microL) or normal. A normal count with greater than 10% immature band forms may indicate an inflammatory response consistent with sepsis. Hematocrit and hemoglobin are typically elevated [1].

**Suspected and known sepsis** [1][2] [show details and secondary tests]
Lesson number 3

- English!

- Saibam os nomes dos medicamentos em inglês:
  - Warfarin, dipyrone, simvastatin, panax ginseng, chlorthalidone, hydrochlorothiazide

- Saibam os nomes das doenças em inglês:
  - Chronic renal failure, sepsis, hypertension, epilepsy, Huntington’s disease
- Tradução não é ideal, mas pode ajudar a dar um norte no entendimento caso a língua inglesa seja uma dificuldade
Lição número 4: buscando termos dentro da monografia

- Quando buscando um termo específico dentro de um documento:
  - Respostas Aprofundadas > Exibir Documento Completo
Lição número 4: buscando termos dentro da monografia

- Quando buscando um termo específico:
  - Respostas Aprofundadas > Exibir Documento Completo > Barra de busca interna

**LEVOTHYROXINE** [Sua pesquisa: levothyroxine]

- Drug Classes: Diagnostic Agent | Diagnostic Agent, Thyroid Function | All
- Routes: Injection | Intravenous | Oral

![Search Bar](image)

5 de 6 resultados para rectal

- **a) Rectal Suppositories**
  1) Despite a 1.43-fold increase in the daily dose of compounded levothyroxine rectal suppositories compared with oral tablets (161 +/- 89 vs 117 +/- 54 mcg), the levels were significantly lower during the administration of suppositories for serum free thyroxine (0.657 vs 1.25 nanograms/dL) and free triiodothyronine (0.657 vs 1.94 picograms/mL) in 6 Japanese patients with hypothyroidism. There was no significant difference between suppository and tablets in the level of TSH. The serum free thyroxine/dose ratio for the suppository was significantly 44% lower compared with tablets. Suppositories (75 mcg of levothyroxine/1.35 g of suppository) were compounded by adding crushed levothyroxine tablets to melted suppository bases (equal portions of Witepsol H-15 and E-75) and storing the molded suppositories at 4 degrees C until use [183].

2) **Time to Peak Concentration**
   a) Oral, tablet: 2 to 4 hours [182].

ADME
Medicamentos
Busca por nomes de marca ou princípio ativo em inglês

- Busca por princípio ativo em inglês ou nome de marca

- Micromedex já oferece algumas opções de autocompletar
Resultados de nome de marca

- EUA e Global

### Resultados de nomes de marca


Exibindo 2 of 2 resultados encontrados para "cymbalta" Not looking for a brand name drug? Click here to expand your search to free-text results.

<table>
<thead>
<tr>
<th>Cymbalta (US)</th>
<th>DULOXETINE HYDROCHLORIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cymbalta (Global)</td>
<td>DULOXETINE HYDROCHLORIDE</td>
</tr>
</tbody>
</table>

© 2017 Truven Health Analytics LLC | Sobre | Contato | Training Center | Guia do usuário | Garantia e isenção | Micromedex.com
Abas de

- **Respostas Rápidas**: informações diretas, em bullet points, uso à beira-leito
- **Respostas Aprofundadas**: informações mais detalhadas, descrições de trabalhos científicos

**Duloxetine Hydrochloride** [Contido em: Cymbalta]

**Dosing/Administration**

**Adult Dosing**

*Consultar 'Respostas aprofundadas' Resultados detalhados.*

**Important Note**
- Duloxetine should not be used concomitantly with MAOIs intended to treat psychiatric disorders or with linezolid or IV methylene blue. Do not initiate duloxetine within 14 days of MAOI discontinuation. Do not initiate an MAOI within 5 days of discontinuing duloxetine. Do not initiate duloxetine in patients being treated with linezolid or IV methylene blue; duloxetine may be resumed 24 hours after the last linezolid or IV methylene blue dose [3].
- **Beers Criteria**: Use caution or avoid use as potentially inappropriate in older adults [4]

**General Dosage Information**
- Avoid abrupt discontinuation, taper dose gradually; if intolerable symptoms, resume previous dose followed by smaller decreases [3]

**Diabetic peripheral neuropathy - Pain**
Respostas Rápidas
Qual a dose máxima da Fluoxetina comprimido (liberação imediata) para Distúrbio Depressivo Maior?

1. 60mg/dia
2. 80mg/dia
3. 100mg/dia
4. 120mg/dia
Buscando Fluoxetina

- Micromedex já oferece algumas opções de autocompletar
**Fluoxetine Hydrochloride**

**Drug Classes:** Antidepressant | Autonomic | All

**Routes:** Oral

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**Dosing/Administration**

**Adult Dosing** 🇺🇸

Consultar 'Respostas aprofundadas' Resultados detalhados.

**Important Note**

- Discontinue MAOIs intended to treat psychiatric disorders at least 14 days prior to the administration of fluoxetine. At least 5 weeks should elapse after fluoxetine discontinuation before an MAOI intended to treat psychiatric disorders is initiated. Do not initiate fluoxetine in a patient receiving concurrent linezolid or IV methylene blue. If a patient is already receiving fluoxetine and treatment with linezolid or IV methylene blue is unavoidable, and acceptable alternatives to linezolid or IV methylene blue are unavailable, immediately stop fluoxetine and administer linezolid or IV methylene blue if the potential benefits of therapy are judged to outweigh the risks for serotonin syndrome. Monitor the patient for symptoms of serotonin syndrome for 5 weeks or for 24 hours after the last dose of linezolid or IV methylene blue, whichever comes first. Fluoxetine may be resumed 24 hours after the last concurrent dose of linezolid or IV methylene blue [8][9][10][11].

- Beers Criteria: Use caution or avoid use as potentially inappropriate in older adults [12].

- Orphan drug designation: Treatment of autism

- Orphan drug designation: Treatment of body dysmorphic disorder in children and adolescents
Adult Dosing

Major depressive disorder
- (Tablet, capsule, and oral solution) Initial, 20 mg orally once daily in the morning; may increase daily dose after several weeks if inadequate response; full therapeutic effect may be delayed 4 weeks or longer; MAX dose 80 mg/day [13][10][14][16]
- (Delayed-release capsule) May convert from 20 mg/day to 90 mg orally once weekly, starting 7 days after the last daily dose of 20 mg [14]

Obsessive-compulsive disorder
- (Tablet, capsule, and solution) Initial, 20 mg orally once daily in the morning; maintenance, 20 to 60 mg orally once daily (single dose in morning, or 2 divided doses at morning and noon); after several weeks if inadequate response may increase to MAX 80 mg/day (FDA dosage) [13][14][10][16]
- Initial, 20 mg/day orally; may increase by 20 mg/day once every week to usual target dose of 40 to 60 mg/day; MAX 80 to 120 mg/day, especially in rapid metabolizers or those with inadequate response after 8 weeks (guideline dosage) [17]

- Traz as indicações clínicas do medicamento e sua dose; dose máxima pode variar com base na indicação clínica
Quais os usos aprovados e off-label da Duloxetina?
Dosing/Administration

- Adult Dosing
- Pediatric Dosing
- FDA Uses
- Non-FDA Uses
- Dose Adjustments
- Administration
- Comparative Efficacy
- Place In Therapy
Indicações aprovadas pela FDA

Dosing/Administration

FDA Uses

Consultar 'Respostas aprofundadas' Resultados detalhados.

- Diabetic peripheral neuropathy - Pain
- Fibromyalgia
- Generalized anxiety disorder
- Major depressive disorder
- Musculoskeletal pain, Chronic
Indicações Off-label

Dosing/Administration
Non-FDA Uses

Consultar 'Respostas aprofundadas' Resultados detalhados.

- Pain, Chemotherapy-induced - Peripheral nerve disease
- Urinary incontinence
Qual o ajuste de dose da Olanzapina para função renal alterada?

- Não é necessário ajuste para função renal
- Máximo 2,5 mg/dia
- Máximo 5 mg/dia
- Máximo 7,5 mg/dia
- Máximo 10 mg/dia
Dose Adjustments – ajustes de dose

Dosing/Administration

Dose Adjustments

- Renal impairment: No dosage adjustment required [7][8][6]
- Dialysis: Not removed by dialysis [7][8][6]
- Hepatic impairment (with fluoxetine): Initial, 2.5 to 5 mg orally with fluoxetine 20 mg orally [7][8]
- Geriatric: 5 mg per IM injection [6]
- Gender: No dosage adjustment required [7][8]
- Race: No dosage adjustment required [7][8][6]
- Smoking: No dosage adjustment required [7][8][6]
- Special populations (monotherapy): Initial, 5 mg orally in patients who are debilitated, predisposed to hypotensive factors that slow olanzapine metabolism, or may be pharmacodynamically sensitive to olanzapine [7][8]
- Special populations (with fluoxetine): Initial, 2.5 to 5 mg with fluoxetine 20 mg orally in patients who are pred
Quais são as precauções de uso da Rivaroxabana?
Medication Safety

Precautions

Consultar 'Respostas aprofundadas' Resultados detalhados.

- Boehr Criteria: Avoid use in older adults with CrCl less than 30 mL/min and reduce dose in older adults with CrCl 30 to 50 mL/min due to increased risk of bleeding [1].
- Cardiovascular: Not recommended for use in patients with prosthetic heart valves [16].
- Concomitant use: Avoid combined P-glycoprotein (P-gp) and strong CYP3A4 inducers, such as carbamazepine, phenytoin, rifampin, and St. John’s wort, or combined P-gp and strong CYP3A4 inhibitors, such as ketoconazole, itraconazole, clarithromycin, lopinavir/ritonavir, ritonavir, indinavir/ritonavir, and conivaptan [16].
- Concomitant use: HIV protease inhibitors are not recommended [17].
- Concomitant use: Do not use in patients with a CrCl of 15 to less than 80 mL/min who are taking concomitant combined P-gp and moderate CYP3A4 inhibitors (e.g., diltiazem, verapamil, dronedarone, or erythromycin) unless the potential benefit justifies the potential risk [11].
- Hematologic: Life-threatening bleeding, including fatalities, may occur with use, increased risk in patients receiving agents that impair hemostasis, SSRIs, or serotonin norepinephrine reuptake inhibitors, discontinue if active pathological hemorrhage develops [11].
De maneira geral, o que orientar para um paciente quanto ao uso da duloxetina?
Medication Counseling – Aconselhamento sobre medicamentos

Respostas rápidas

Patient Education

Medication Counseling

Patient Handouts
Medication Counseling (Aconselhamento sobre medicamentos)

Patient Education
Medication Counseling

- Advise patient to avoid activities requiring mental alertness or coordination until drug effects are realized, as drug may cause dizziness and somnolence [3].
- Counsel patient or caregiver to report worsening depression, suicidal ideation, or unusual changes in behavior [3].
- Tell patient to report symptoms of hepatotoxicity or bleeding [3].
- Instruct patient to report symptoms of erythema multiforme or Stevens-Johnson syndrome [3].
- Side effects may include nausea, dry mouth, constipation, decreased appetite, hyperhidrosis, urinary retention, and orthostatic hypotension [3].
- Instruct patient to report symptoms of serotonin syndrome [3].
- Advise patient against sudden discontinuation to prevent withdrawal symptoms [3].
- Instruct patient to avoid heavy alcohol intake, as concomitant use may lead to liver injury [3].
- Warn patient to avoid aspirin or NSAIDs due to potential for bleeding [3].

- Informações importantes para informar ao paciente sobre o uso do medicamento
Respostas Aprofundadas
Qual a evidência para o uso da Duloxetina nas indicações consideradas?
Duloxetine Hydrochloride
Cancer pain
Diabetic peripheral neuropathy - Pain
Fibromyalgia
Generalized anxiety disorder
Major depressive disorder
Musculoskeletal pain, Chronic Pain, Chemotherapy-induced - Peripheral nerve disease
Urinary incontinence

Lista das indicações clínicas daquele medicamento
Dentro da indicação clínica, informações sobre aprovação, eficácia, estudos clínicos, etc
Bloco a: overview (geral)

Musculoskeletal pain, Chronic

FDA Labeled Indication

a) Overview

FDA Approval: Adult, yes; Pediatric, no
Efficacy: Adult, Evidence favors efficacy
Recommendation: Adult, Class IIb
Strength of Evidence: Adult, Category B
See Drug Consult reference: RECOMMENDATION AND EVIDENCE RATINGS

Eficácia
Força de recomendação
Força da evidência
bloco b: sumário

- Resumo dos estudos que foram avaliados pelo comitê editorial do Micromedex

b) Summary:

Duloxetine hydrochloride is indicated for the management of chronic musculoskeletal pain in adults [2].

In 3 double-blind, randomized, placebo-controlled studies among patients with chronic low back pain or chronic pain secondary to osteoarthritis, duloxetine was associated with greater pain reduction relative to placebo [2].

In 3 randomized, double-blind trials, treatment of osteoarthritis of the knee with duloxetine demonstrated significantly greater pain relief compared with placebo [3][4][2].

Efficacy beyond 13 weeks has not been established [2].
Bloco c: estudos

- Estudos e sua descrição: desenho, pacientes, desfechos, etc

![Chronic Back Pain](image)

<table>
<thead>
<tr>
<th>Adult:</th>
<th>c) Chronic Back Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>In two 13-week, double-blind, randomized, placebo-controlled trials</td>
</tr>
<tr>
<td></td>
<td>Patients enrolled in the studies had no history of signs of radiculopathy or spinal stenosis. In the first study, patients were initiated on duloxetine 60 mg/day (n=115) or placebo (n=121). Patients who experienced less than 30% pain reduction after 7 weeks of therapy and tolerated duloxetine 60 mg dose were subsequently given a dose adjustment to 120 mg/day in a double-blinded fashion for the rest of the study. In the second trial, patients received fixed doses of duloxetine 60 mg (n=198) or placebo (n=203). At baseline, patients in both studies had a mean pain score of 6 on a scale of 0 (worst pain) to 10 (worst possible pain). At study endpoint, patients taking duloxetine reported significantly greater pain reduction compared with those taking placebo (pain score not provided) [2].</td>
</tr>
</tbody>
</table>
Meu paciente está em uso de Sinvastatina. O que preciso monitorar do ponto de vista de toxicidade?
Monitoramento - sinvastatina

- Monitoramento terapêutico e tóxico
  - Parâmetros Laboratoriais
  - Achados Físicos

A) Therapeutic

1. Laboratory Parameters
   a) Evaluate lipid levels 4 weeks after the initiation of simvastatin therapy and then periodically during therapy [3][4].

B) Toxic

1) Laboratory Parameters
   a) Evaluate liver function tests before initiating therapy with simvastatin and repeat as clinically indicated. Notably, a rising ALT with creatine kinase may indicate myopathy [3][4].
   b) Consider periodically evaluating creatine kinase levels at initiation of therapy and with dose increases, however this cannot assure myopathy or rhabdomyolysis prevention. Closer monitoring is warranted in patients with complicated medical history including those with renal insufficiency as a consequence of long-term diabetes mellitus [3][4].
   c) Closely monitor patients with severe renal impairment [3].
Mais informações sobre dose
Ex: Doses do Alopurinol
Ex: Doses do Alopurinol

Doses separadas por
- Tipo (Normal, Renal, etc)
  - Sal
  - Via
  - Indicação clínica

Dosing/Administration
Adult Dosing
Pediatric Dosing
FDA Uses
Non-FDA Uses
Dose Adjustments
Administration
Comparative Efficacy
Place In Therapy

Medication Safety
Contraindications
Uso label, off-label

1) FDA Dosage
   a) Initial dosage: 100 mg orally daily [79]
   b) Titration: Increase by 100 mg daily at weekly intervals until a serum uric acid level of 6 mg/dL (0.36 mmol/L) or less is attained [79]
   c) Maintenance dosage: Dosage is dependant on severity of disease and uric acid level; doses in excess of 300 mg should be administered in divided doses [79].
   d) Usual dosage (mild gout): 200 mg to 300 mg orally daily [79]
   e) Usual dosage (moderately severe tophaceous gout): 400 mg to 600 mg orally daily; doses in excess of 300 mg should be administered in divided doses [79].
   f) Maximum dosage: 800 mg orally per day [79]
   g) Allopurinol dose adjustments in patients on colchicine or anti-inflammatory agents: Continue other uricosuric or anti-inflammatory therapy until uric acid is normalized and no gouty attacks have occurred for several months [79].
   h) Switching from other uricosuric agents: Gradually decrease dose of concomitant agent while gradually increasing allopurinol dosage to maintain normal uric acid levels [79].

2) Guideline Dosage
   a) Initial dosage: No more than 100 mg orally daily, titrate maintenance dose upward every 2 to 5 weeks to target serum uric acid level. May exceed 300 mg per day with adequate monitoring [85].

3) Off-Label Dosage
   a) Dose escalation in patients receiving allopurinol therapy for at least 1 month with serum urate 6 mg/dL (0.36 mmol/L) or greater: Increase by 100 mg daily every month until serum urate of 6 mg/dL (0.36 mmol/L) or less is attained [86]
Increased uric acid level, in cancer patients with leukemia, lymphoma, and malignancies receiving cancer therapy expected to result in an increase in serum and urinary uric acid levels

1) FDA Dosage
   a) Usual dosage: 600 to 800 mg orally daily for 2 or 3 days together with a high fluid intake; dosage varies with severity of disease and is best determined by using serum uric acid as an index. Dosage requirements in excess of 300 mg should be administered in divided doses [79].
   b) Maximum dosage: 800 mg/day [79]
   c) Discontinuing therapy: When the overproduction of uric acid is no longer present [79].

2) Guideline Dosage
   a) Dosage: 50 to 100 mg/m² orally every 8 hours, initiated 24 to 48 hours before the start of chemotherapy induction. Duration of allopurinol therapy is generally 3 to 7 days, based on the ongoing risk of tumor lysis syndrome for each patient [95].
   b) Maximum dosage: 300 mg/m²/day or 10 mg/kg/day divided orally every 8 hours to a maximum dose of 800 mg/day [95].

See Drug Consult reference: [Tumor Lysis Syndrome - Prophylaxis and Management]

- Algumas recomendações de dose estão em documentos especiais – os Drug Consults
Necessidade de administrar medicamento como solução oral a partir de um comprimido/formulação IV. Tem como?
Formulações Extemporâneas (adaptações de forma farmacêutica)

- Eventualmente é necessário manipular algum medicamento para adaptar uma forma farmacêutica em outra, por exemplo para administração por sonda.

- Quando houver um trabalho científico sobre tal processo, ele estará em Respostas Aprofundadas > Administration
Methotrexate

Drug Classes: Antimetabolite | Antineoplastic Agent | All
Routes: Oral | Subcutaneous

Dosing/Administration

Adult Dosing

Consultar 'Respostas aprofundadas' Resultados detalhados.

Important Note
- Methotrexate autoinjector is intended for once weekly subQ use only. Mistaken daily use has resulted in fatal toxicity. Use another alternative dosing regimens and routes of administration [3][4].
- Methotrexate oral solution (Xatmep(TM)) is intended for once weekly oral use only. Mistaken daily use has resulted in fatal toxicity formulation in patients requiring alternative dosing or routes of administration [5].
- Orphan drug designation: Treatment of Myasthenia Gravis
- Orphan drug designation: Treatment of acute lymphoblastic leukemia in pediatric patients (0 through 16 years of age)
Exemplo: metotrexato

METHOTREXATE

Drug Classes: Antimetabolite | Antineoplastic Agent | All

Routes: Oral | Subcutaneous

Dosing/Administration

Administration

Consultar 'Respostas rápidas' resultados no documento.

A) Methotrexate

1) Preparation

   a) General Information

      1) Use proper procedures for handling and disposal of cytotoxic drugs [3][1][2].

      2) In the preparation and administration of injections, the National Institute for Occupational Safety and Health (NIOSH) recommends the use of double gloves and a protective gown. Prepare in a biological safety cabinet or a compounding aseptic containment system. To prevent eye/face and respiratory protection may be needed. Prepare compounds in a closed system drug transfer device. During administration, there is a potential that the substance could splash or if the patient may resist, use eye/face protection. Administer certain dose(s) via a closed system drug transfer device [9].

   b) Oral route
E) Extemporaneous Formulation - Oral route

1) Safe Handling
   a) The National Institute for Occupational Safety and Health (NIOSH) recommends the use of double gloves and a protective gown by anyone compounding a hazardous oral liquid or any hazardous drug for feeding tube. If possible, prepare in a control device. Respiratory, eye, and face protection are needed if not done in a control device [9].

2) Methotrexate 2 mg/mL Oral Solution
   a) The following formula for an extemporaneous oral solution of methotrexate 2 mg/mL was found to be stable for 120 days when stored in a 30 mL amber type 1 glass bottle, at 4 and 25 degrees C [1152].
      1) Dissolve sodium bicarbonate 0.6 g in sterile water in a mortar or in a beaker with a magnetic stirrer to insure adequate stirring.
      2) Slowly incorporate Ora Sweet(R) 7.5 mL.
      3) While continuing to stir, add 2.4 mL of methotrexate for injection 500 mg/20 mL injectable solution (Mylan(R)). Note: Do not use methotrexate powder for injection.
      4) Add sufficient sterile water to reach a final volume of 30 mL.
Farmacocinética
Informações detalhadas sobre início de ação, ADME, tempo de meia-vida, etc

b) Tissues and Fluids

1) Burn eschar: 4 to 14.8 mcg/mL (trough) [37]
   a) The trough micafungin concentrations obtained from burn eschar in a severely burned adult patient were 4 mcg/mL and 14.8 mcg/mL following initial and repeated doses, respectively, of IV micafungin 200 mg once daily. It was observed that these values were 2.2 to 6.4 times higher than the patient's corresponding plasma levels. The micafungin concentrations in burn eschar were between 8 and more than 1000 times higher than the reported MIC90 of micafungin against Candida albicans, C. glabrata, C. tropicalis, and Aspergillus fumigatus [37].

2) Cerebrospinal fluid: 1.94 mcg/mL [43]
   a) In 2 adult patients who received IV micafungin 150 mg, the mean steady-state micafungin concentration in cerebrospinal fluid was 1.94 mcg/mL. In the first patient (diagnosed with fungemia) the observed value was 3.87 mcg/mL (range 3.07 to 4.66 mcg/mL); in the second patient (with suspected fungemia) the observed value was 0.0188 mcg/mL [43].

3) Pleural effusion: 0.68 mcg/mL [43]
   a) In 2 adult patients with invasive fungal infection, the mean steady-state micafungin concentration in pleural effusion was 0.68 mcg/mL (0.53 to 0.86 mcg/mL) following administration of IV micafungin 150 mg [43].

4) Ascites: 1.02 mcg/mL [43]
   a) In 1 adult patient with invasive fungal infection, the steady-state micafungin concentration in ascites was 1.02 mcg/mL following administration of IV micafungin 150 mg [43].

5) Wound tissue fluid: 4.42 mcg/mL [43]
   a) In 1 adult patient with invasive fungal infection, the steady-state micafungin concentration in wound tissue fluid was 4.42 mcg/mL (3.9 to 4.93 mcg/mL) following administration of IV micafungin 150 mg [43].

6) Pulmonary epithelial lining fluid: 1.38 mcg/mL [36]
DULOXETINE [Sua pesquisa: duloxetine]

3) Time to Peak Concentration
   a) Oral: 6 to 10 hours [59][200][199].
      1) Maximal plasma concentrations (Cmax) of duloxetine occur 6 hours post dose, but are delayed from 6 to 10 hours if taken in the presence of food [59].
      2) Values represent times to peak levels over the range of 10 to 40 mg once daily, with a tendency toward prolonged times with higher doses. Duloxetine exhibits linear pharmacokinetics [201].
   3) Steady-State: Steady-state has been reached in 3 to 5 days with 20 to 40 mg twice-daily, and after 7 days with 20 mg once daily in healthy subjects; with the latter regimen, the mean peak plasma level at steady-state was 21 nanograms/mL (ng/mL; 71 nanomol/L (nmol/L); 15 to 32 ng/mL (50 to 110 nmol/L)) [200].
   4) During oral administration of 20 and 30 mg twice daily in healthy subjects, mean steady-state trough plasma levels were approximately 15 ng/mL (50 nmol/L) and 20 ng/mL (70 nmol/L), respectively, in one study [201].

4) Area Under the Curve
   a) Renal Impairment
      1) After a single 60-milligram dose of duloxetine, patients with end stage renal disease receiving chronic intermittent hemodialysis had Cmax and AUC values approximately 100% greater than those of patients with normal renal function. The AUCs of 4-hydroxy duloxetine glucuronide and 5-hydroxy, 6-methoxy duloxetine sulfate, the major circulating metabolites, which are largely excreted in urine, were approximately 7- to 9-fold higher and would be expected to increase further with multiple dosing [59].
   b) Hepatic Impairment
      1) After a single 20-milligram dose of duloxetine, 6 cirrhotic patients with moderate liver impairment (Child-Pugh Class B) showed a 5-fold increase in AUC compared to non-cirrhotic patients [59].
   c) Geriatric
      1) After a single 40 mg dose of duloxetine, AUC values were approximately 25% higher among elderly women (65 to 77 years) compared younger women (32 to 50 years), but there was no difference observed for Cmax [1].
Reporte de farmacovigilância – reação cutânea/dermatológica grave após uso de carbamazepina. Há relato descrito?
Reações adversas DETALHADAS da Carbamazepina

Carbamazepine

Drug Classes: Anticonvulsant | Antimanic | All
Routes: Intravenous | Oral

Dosing/Administration

Adult Dosing

Consultar 'Respostas aprofundadas' Resultados detalhados.

Important Note
- Prior to initiation, assess CBC, liver function, urinalysis, and blood urea nitrogen [4][5][6][7][8] and perform an eye exam lamp, funduscopy, and tonometry in all patients [5][6][7][8] and test for the presence of the HLA-B*1502 allele in patients which HLA-B*1502 may be present [4][5][6][7][8].
- Allow at least 14 days to elapse after the discontinuation of an MAO inhibitor prior to starting therapy [4][5][6][7][8].
- Beers Criteria: Use caution or avoid use as potentially inappropriate in older adults [9].
- Orphan drug designation: The intravenous formulation is used in the treatment of patients with epilepsy who cannot take an (NPO)

General Dosage Information

Gradually taper therapy at discontinuation to minimize the possibility of increased seizure frequency [4][5][8][10][11].
Medication Safety

Adverse Effects

Consultar 'Respostas rápidas' resultados no documento.

- Cardiovascular Effects
- Dermatologic Effects
- Endocrine/Metabolic Effects
- Gastrointestinal Effects
- Hematologic Effects
- Hepatic Effects
- Immunologic Effects
- Musculoskeletal Effects
- Neurologic Effects
- Ophthalmic Effects
- Otic Effects
- Psychiatric Effects
- Renal Effects
- Reproductive Effects
- Respiratory Effects
- Other

- Reações Adversas separadas por sistemas orgânicos
Dentro do sistema orgânico, cada reação documentada

Dermatologic Effects
Acne
Alopecia
Diaphoresis
Disorder of skin pigmentation
Eosinophilic pustular folliculitis
Erythema multiforme
Erythematous rash
Erythroderma
Fixed drug eruption
Generalized exanthematous pustulosis, acute
Hirsutism
Lichenoid dermatitis
Mycosis fungoides
Onychomadesis
Pemphigus vulgaris
Photosensitivity
Pruritic rash
Pruritus
Pyoderma
Rash
Stevens-Johnson syndrome
Summary
Toxic epidermal necrolysis
Urticaria

Acne

1) One long-term study has evaluated the incidence of acne in 243 patients with epilepsy receiving various anticonvulsants on a long-term basis. Results were compared with matched controls from a normal population of 2176 individuals. The prevalence of acne or sebum excretion rate was not different in anticonvulsant treated patients as compared with the control group, or in patients taking phenytoin as compared with those who were not taking phenytoin. However, precise information regarding length of anticonvulsant treatment, types of drugs administered and doses were not presented [188][189][190].
Stevens-Johnson syndrome

1) General Information

a) Most reactions (over 90%) occur within the first few months of therapy [1][2][59][60].

b) Occurred at an estimated rate of 1 to 6 per 10,000 new users with mainly Caucasian populations, but the risk in some Asian countries or in patients of Asian descent is estimated to be about 10 times higher [1][2][59][60].

c) There is a strong correlation between the risk of developing Stevens-Johnson syndrome and the presence of human leukocyte antigen-B*1502 (HLA-B*1502) allele, an inherited allelic variant of the HLA-B gene, among patients of Asian ancestry, particularly Chinese ancestry [1][2][59][60].

d) Individuals not of Asian origin (eg, Caucasians, African Americans, Hispanics, and Native Americans) generally are not HLA-B*1502 positive but are still at risk for fatal dermatologic reactions [2][59][60].

e) The following are known HLA-B*1502 positive prevalence rates in some regions of Asia: greater than 15% in Hong Kong, Thailand, Malaysia, and parts of the Philippines; 10% in Taiwan; 4% in North China; 2% to 4% in South Asia, including Indians, but may be higher in some groups; and less than 1% in Japan and Korea [1][2][59][60].

f) Short-term therapy with carbamazepine has been associated with Stevens Johnson syndrome and toxic epidermal necrolysis in a case-control study and appears to be a risk factor. Twenty-one cases were reported with either SJS or TEN following a range of therapy of 2 to 4 weeks. The risk is largely confined to the start of carbamazepine therapy [208].

g) Cases of exfoliative dermatitis, including Stevens-Johnson syndrome, have been reported in patients receiving carbamazepine. Generally these patients have been successfully treated with steroids and discontinuation of carbamazepine with recovery occurring within 3 weeks [209][210]; (Vaillant et al, 1989).
Stevens-Johnson – Prevention and Management (prevenção e manejo)

2) Prevention and Management

a) Screen genetically at-risk patients prior to receiving carbamazepine [1][2][59][60].

b) Careful assessment of the risk-benefit should be conducted among patients tested positive for the allele prior to initiation of carbamazepine [1][2][59][60].

c) Consider avoiding concomitant use of other agents associated with Stevens-Johnson syndrome or toxic epidermal necrolysis [2]

d) Discontinue use if a serious dermatological reaction is suspected [1][2][59][60].
A 61-year-old woman developed fatal Stevens-Johnson syndrome and toxic epidermal necrolysis while taking carbamazepine. The patient was started on carbamazepine 300 mg daily plus amitriptyline 12.5 mg at bedtime for painful lesions due to herpes zoster infection. Fifteen days later, the patient presented with a mild rash accompanied by symptoms of malaise, fever, muscle and joint pain. Carbamazepine was immediately discontinued, and she continued taking amitriptyline. She was hospitalized 1 week later with erythematous cutaneous eruptions, bullous and macular purpura covering her skin, and had complaints of urticaria and generalized exanthema. Codeine and dipyrene were administered for pain control. The lesions continued to increase in size and in number, with skin necrosis and erosions developing. Symmetrical sloughing of the skin over 50% of her body was noted, including areas of her face, neck, thorax, dorsum, and limbs; she also developed painful erosions and vesicular lesions of the buccal, conjunctival and genital mucosa. The patient was transferred to the ICU but her clinical condition worsened, with respiratory and cardiovascular involvement. Approximately 2 weeks later she died from septic shock and multiple organ failure [202].
Necessito informações clínicas comparativas do Ácido Valpróico com outros medicamentos anticonvulsivantes.
Comparative Efficacy – Eficácia Comparada

Valproic Acid

Drug Classes: Anticonvulsant | Antimanic | All
Routes: Oral

Dosing/Administration
Adult Dosing
Pediatric Dosing
FDA Uses
Non-FDA Uses
Dose Adjustments
Administration
Comparative Efficacy
Place In Therapy
Medication Safety

Dosing/Administration
Adult Dosing
Consultar ‘Respostas rápidas’ resultados no documento.

- Normal Dosage
- Dosage in Renal Failure
- Dosage in Hepatic Insufficiency
- Dosage in Geriatric Patients
- Dosage Adjustment During Dialysis

Normal Dosage
Divalproex Sodium
Valproate Sodium
Valproic Acid

Divalproex Sodium
Sodium

Resultados relacionados
Doença
Medicamento alternativo
Toxicologia

Drug Consults
Index Nominum
Martindale
PDR®
Product Lookup - Martindale
Product Lookup - Tox & Drug
Dosing/Administration
Comparative Efficacy

- Biperiden
- Bromocriptine
- Carbamazepine
- Cyproheptadine
- Ethosuximide
- Haloperidol
- Ketorolac Tromethamine
- Lamotrigine
- Lithium
- Lithium Carbonate
- Metoclopramide Hydrochloride
- Olanzapine
- Phenobarbital
- Phenobarbital Sodium
- Phenytoin
- Primidone
- Prochlorperazine
- Progabide
- Propranolol
- Risperidone
- Topiramate

- Seção traz os medicamentos para os quais existe um artigo/evidência de comparação de eficácia com o medicamento em questão
Topiramate

Epilepsy

(a) In a double-blinded, randomized study, to

Biphenyl
Bromocriptine
Carbamazepine

Descrição do trabalho científico de eficácia comparada
Além da Duloxetina, que outros medicamentos são da classe dos inibidores de recaptação de serotonina/noradrenalina?
Classes de medicamentos – acesso pelo medicamento

- Acesso pelo medicamento

Duloxetine Hydrochloride [Sua pesquisa: duloxetine]

Drug Classes: Antianxiety | Antidepressant | All

Routes: Oral

Dosing/Administration

Adult Dosing

Consultar 'Respostas aprofundadas' Resultados detalhados.

Important Note

- Duloxetine should not be used concomitantly with MAOIs intended to treat psychiatric disorders or with linezolid or IV methylene blue. Do not initiate duloxetine within 14 days of MAOI discontinuation. Do not initiate an MAOI within 5 days of discontinuing duloxetine. Do not initiate duloxetine in patients being treated with linezolid or IV methylene blue; duloxetine may be resumed 24 hours after the last linezolid or IV methylene blue dose [3].

- Beers Criteria: Use caution or avoid use as potentially inappropriate in older adults [4].

General Dosage Information
Drug Classes - Classes de medicamentos

- Traz as classes de medicamentos às quais o medicamento pertence e a lista de medicamentos dentro de uma classe

- Por exemplo, Sertralina:

<table>
<thead>
<tr>
<th>Drug Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antidepressant</td>
</tr>
<tr>
<td>Autonomic</td>
</tr>
<tr>
<td>Central Nervous System Agent</td>
</tr>
<tr>
<td>Serotonergic</td>
</tr>
<tr>
<td>Serotonin Reuptake Inhibitor</td>
</tr>
</tbody>
</table>
Duloxetine Hydrochloride
Se clicar na classe >>> lista dos medicamentos daquela classe
Drug Class - Serotonin/Norepinephrine Reuptake Inhibitor

Displaying 14 of 14 results for drugs in the Serotonin/Norepinephrine Reuptake Inhibitor class

CLOVOXAMINE

Desvenlafaxine

Desvenlafaxine Succinate

DULOXETINE

Duloxetine Hydrochloride

LEVOMILNACIPRAN
Classes de medicamentos – acesso índice completo
Posso triturar o Tramadol para facilitar a administração oral/sonda?
Tramadol Hydrochloride [Sua pesquisa: tramadol]

Drug Classes: Analgesic | Central Nervous System Agent | All
Routes: Oral

Dosing/Administration

Adult Dosing
Consultar 'Respostas aprofundadas' Resultados detalhados.

- Pain, chronic. Moderate to moderately severe in patients requiring around-the-clock treatment for an extended period of time: extended-release tablets (Ryzolt(TM)) for patients not currently on tramadol immediate-release products: 100 mg ORALLY once daily; may titrate up by 100-mg increments every 2 to 3 days as necessary; MAX 300 mg/day [3]
- Pain, chronic. Moderate to moderately severe in patients requiring around the clock treatment for an extended period of

- Resultados relacionados
  - Doença
  - Toxicologia
  - Drug Consults
  - Index Nominum
  - Informações sobre medicamentos para o consumidor
  - Martindale
  - Product Lookup - Martindale
  - Product Lookup - Tox & Drug

Acessar o medicamento, verificar Resultados Relacionados
### Resultados relacionados

- Doença
- Toxicologia

- **Drug Consults**
- Index Nominum
- Informações sobre medicamentos para o consumidor
- Martindale
- Product Lookup - Martindale
- Product Lookup - Tox & Drug

- Drug Consults é uma base com vários documentos relacionados ao medicamento em questão, como tabelas comparativas, protocolos de tratamento, avaliações de reações adversas, etc
Drug Consults – DO NOT CRUSH

Drug Consults

- Beers Criteria - A Summary of Potentially Inappropriate Medication Use Among the Elderly
- Class Comparison: Opioid Analgesic Adverse Effects
- **Do Not Crush List**
- Drug Interactions: CYP2D6 Inhibitors and Substrates
- Drug-Induced Hemolytic Anemia in Patients with Glucose-6-Phosphate Dehydrogenase (G6PD) Deficiency
- Fibromyalgia: Clinical Practice Guideline
- Management of Cancer-Related Pain in Adult Patients
- Migraine Prophylaxis and Treatment in Adults - Clinical Practice Guidelines
- New Drug Approvals - 2008 Micromedex News
- Opioid Analgesics - Cross Allergenicity

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[Options: Imprimir, Fechar]
A variety of oral solid dosage forms should not be crushed or chewed prior to administration because of their formulation. In general, these include:

- a) Extended-release, a term used synonymously with controlled-release, prolonged-action, and sustained-release formulations
- b) Enteric or protective coated medications
- c) Medications formulated for sublingual or buccal absorption, or those designed to exert a local effect in the mouth (e.g., lozenges)
- d) Medications that are offensive-tasting to the patient, irritate the oral mucosa, or contain dyes or substances that may stain the teeth or oral mucosa; these may be given to patients with nasogastric (NG) tubes
- e) Medications that are potentially carcinogenic and/or teratogenic and require special handling to limit exposure to health risks
- f) Medications that are manufactured by a certain technology to discourage or deter misuse and abuse

Capsules/Tablets That Should Not Be Crushed List

This list serves as a general guide and is not all inclusive. Products are listed alphabetically by name (trade or generic).

Clinicians should use their best judgment based on an individual patient's medical need.

Unless otherwise specified, the source of the information is obtained from the manufacturer's prescribing information.

<table>
<thead>
<tr>
<th>Capsules/Tablets That Should Not Be Crushed*</th>
<th>Trade/Generic Drug Names</th>
<th>Dosage Form</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>tramadol hydrochloride</td>
<td>Capsule, Extended Release; Tablet, Extended Release</td>
<td>Do not split, chew, dissolve or crush</td>
</tr>
<tr>
<td></td>
<td>tramadol hydrochloride</td>
<td>Tablet, Disintegrating</td>
<td>Place tablet in the mouth, where it will dissolve in seconds and then be swallowed with the saliva. Do not chew, the tablet.</td>
</tr>
</tbody>
</table>
Como acessar: Drug Consults índice completo
Drug Consults importantes

- Não Triturar (Do Not Crush):
  http://www.micromedexsolutions.com/micromedex2/librarian/deeplink_access?source=deepLink&SearchTerm=do%20not%20crush

- Administração de medicamentos por sonda (Enteral Feeding):
  http://www.micromedexsolutions.com/micromedex2/librarian/deeplink_access?source=deepLink&SearchTerm=enteral%20feeding

- Listas de inibidores, substratos e indutores das CYPs (CYP):
  http://www.micromedexsolutions.com/micromedex2/librarian/deeplink_access?source=deepLink&SearchTerm=CYP

- Critério de Beers (uso de medicamentos em idosos) (Beers Criteria):
  http://www.micromedexsolutions.com/micromedex2/librarian/deeplink_access?source=deepLink&SearchTerm=beers%20criteria
Drug Consults importantes 2

- Protocolos de Quimioterapia (chemo acronyms):
  http://www.micromedexsolutions.com/micromedex2/librarian/deeplink
  access?source=deepLink&SearchTerm=chemo%20acronyms

- Tosse induzida por iECA:
  http://www.micromedexsolutions.com/micromedex2/librarian/deeplink
  access?source=deepLink&SearchTerm=ACE%20cough

- Terapia da Sepse:
  http://www.micromedexsolutions.com/micromedex2/librarian/deeplink
  access?source=deepLink&SearchTerm=sepsis%20and%20septic%20shock%20in%20adults
Deprescribing Proton Pump Inhibitors

Consultas a medicamentos

The following algorithm may be applied to adults 18 years or older who have completed a minimum 4-week course of PPIs for upper GI symptoms: [4]

Identify indication

- If mild to moderate esophagitis OR
- GERD treated for 4 to 8 weeks (esophagitis healed, symptoms controlled).
  - Recommend deprescribing; decrease to lower dose or stop and use on-demand dosing
- If peptic ulcer disease treated for 2 to 12 weeks (from NSAID; H pylori) OR
- Upper GI symptoms without endoscopy and asymptomatic for 3 consecutive days OR
- ICU stress ulcer prophylaxis treated beyond ICU admission OR
- Uncomplicated H pylori treated for 2 weeks and asymptomatic,
  - Recommend deprescribing and stop PPI
- If Barrett’s esophagus OR
- Chronic NSAID use and bleeding risk OR
- Severe esophagitis OR
- History of bleeding GI ulcer,
  - Continue PPI (consult gastroenterologist if considering deprescribing)
Dosing/Administration

Adult Dosing

Consultar 'Respostas aprofundadas' Resultados detalhados.

Important Note

- Beers Criteria: Avoid use unless safer alternatives are not available in older adults [1].
- Orphan drug designation: Treatment of Fragile X syndrome
- Orphan drug designation: Treatment of diffuse large B-cell lymphoma

Absence seizure, Simple and complex

- Initial 15 mg/kg/day orally (give in 2 to 3 divided doses if total daily dose exceeds 250 mg) [2]
### Doenças

<table>
<thead>
<tr>
<th>Informações sobre doenças</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terapia medicamentosa para...</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Conduct disorder</strong></td>
<td></td>
</tr>
<tr>
<td>- Guillain-Barre syndrome</td>
<td></td>
</tr>
<tr>
<td>- Metastatic cerebral tumor</td>
<td></td>
</tr>
<tr>
<td>- Seizure</td>
<td></td>
</tr>
<tr>
<td><strong>Causa do problema de saúde...</strong></td>
<td></td>
</tr>
<tr>
<td>- Tinnitus</td>
<td></td>
</tr>
</tbody>
</table>

**Informações laboratoriais**

**Laboratórios a serem considerados...**

- [Imprimir]
- [Fechar]

- Lista quais documentos de doença tem o medicamento em questão como tratamento
• Documentos de doenças trazem a terapia medicamentosa de modo estruturado e rápido
Exames

- Lista quais documentos de exames laboratoriais para o monitoramento do medicamento
Traz indicações do exame (recomendação, evidência), resultados anormais, interações com medicamentos, metodologia, etc.
Drugs That Treat/Cause
Drugs That Treat/Cause

- Essa busca permite trazer quais os medicamentos podem ser usados para tratar uma doença específica ou quais medicamentos podem causar uma reação adversa específica.

- Essas funcionalidades ajudam nas escolhas terapêuticas (por exemplo, nas decisões da Comissão de Farmácia e Terapêutica) e também na farmacovigilância/avaliação de reações adversas.
- Digite o nome da indicação clínica e observe o autocompletar

- Lista de medicamentos que TRATAM constipação (treat)
Drugs That Treat Constipation

Exibir: Effective (17) | Evidence Favors Efficacy (11) | Evidence is Inconclusive (0) | Ineffective (0) | Not Rated (1)

Displaying 29 results for "Drugs That Treat Constipation"

- Effective (17 results)
- Evidence Favors Efficacy (11 results)
- Evidence is Inconclusive (0 results)
# Drugs That Treat Constipation

Displaying 31 results for "Drugs That Treat Constipation"

- **Effective (17 results)**

<table>
<thead>
<tr>
<th>Nome do medicamento</th>
<th>Indicação</th>
<th>Faixa Etária</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisacodyl</td>
<td>Constipation</td>
<td>Adult, Pediatric</td>
</tr>
<tr>
<td>Calcium Polycarbophil</td>
<td>Constipation</td>
<td>Adult, Pediatric</td>
</tr>
<tr>
<td>Castor Oil</td>
<td>Constipation</td>
<td>Adult, Pediatric</td>
</tr>
<tr>
<td>Docusate Sodium</td>
<td>Constipation care</td>
<td>Adult</td>
</tr>
<tr>
<td>Lactulose</td>
<td>Constipation</td>
<td>Adult</td>
</tr>
<tr>
<td>Linclotide</td>
<td>Idiopathic constipation, chronic</td>
<td>Adult</td>
</tr>
<tr>
<td></td>
<td>Irritable bowel syndrome characterized by constipation</td>
<td>Adult</td>
</tr>
</tbody>
</table>
- Paciente apresenta síncope, sem causa clara aparente

- Em uso de
  - Metformina
  - Carbamazepina
  - Rosuvastatina
  - Atenolol

- Podem ser os responsáveis?
Drugs that Treat/Cause

- Digite o nome da doença, sinal, sintoma ou reação adversa
  - Comece digitando o nome, e o auto-complete pode ajudar a preencher o resto

- Observe na lista drop-down as opções Drugs that treat e Drugs that cause
Drugs That Cause Syncope

Displaying 31 of 376 results for "Drugs That Cause Syncope"

ACAMPROSATE

Adalimumab

ADALIMUMAB

Adalimumab-atto

AFAMELANOTIDE
Drugs That Cause – Syncope >>> Carbamazepina

- Após clicar em Carbamazepina:

**Syncope**
1) Postmarketing
   a) Syncope and collapse have been reported during postmarketing surveillance of oral carbamazepine [1]. Some adverse cardiovascular events have resulted in fatalities [59][60].

**Vasculitis**
1) Nonthrombocytopenic purpura with histological features of leukocytoclastic vasculitis was described in a 66-year-old man with trigeminal neuralgia following carbamazepine 200 mg by mouth 3 times daily for approximately 3 weeks. Withdrawal of carbamazepine and therapy with hydrocortisone IV resulted in gradual improvement; purpura resolved within 3 months. Rechallenge was not undertaken in this patient [99].

**Dermatologic Effects**
- Acne
- Alopecia
- Diaphoresis
- Disorder of skin pigmentation
Interações Medicamentosas
Interações Medicamentosas - acesso
Interações Medicamentosas

Interações medicamentosas

Digite o nome do medicamento (de marca ou genérico) no campo de pesquisa. Selecione o medicamento e passe-o para a caixa ao lado direito.

**Inserir termo de pesquisa:**

<table>
<thead>
<tr>
<th>Nomes de medicamentos correspondentes: (21)</th>
<th>Medicamentos a serem verificados:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claravis</td>
<td></td>
</tr>
<tr>
<td>Clarif Eye</td>
<td></td>
</tr>
<tr>
<td>Clarifoam EF</td>
<td></td>
</tr>
<tr>
<td>Clarine</td>
<td></td>
</tr>
<tr>
<td>Clarinex</td>
<td></td>
</tr>
<tr>
<td>Clarinex RedTabs</td>
<td></td>
</tr>
<tr>
<td>Clarinex-D</td>
<td></td>
</tr>
<tr>
<td>Clarinex-D 24 Hour</td>
<td></td>
</tr>
<tr>
<td>Clarinex-D 24HR</td>
<td></td>
</tr>
<tr>
<td>Clarinex-D12 Hour</td>
<td></td>
</tr>
<tr>
<td>Claripel</td>
<td></td>
</tr>
<tr>
<td>Clarithromycin</td>
<td></td>
</tr>
</tbody>
</table>

- Digite o nome dos medicamentos (princípios ativos), em inglês, e passe-os para a caixa ao lado direito.
### Profil de interações medicamentosas do paciente

<table>
<thead>
<tr>
<th>Medicamentos:</th>
<th>Gravidade:</th>
<th>Documentação:</th>
<th>Resumo:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATORVASTATIN CALCULI [Systemic] – DILTAZEM HYDROCHLORIDE [Systemic]</td>
<td>S Major</td>
<td>Good</td>
<td>Concurrent use of ATORVASTATIN and DILTAZEM may result in an increased risk of rhabdomyolysis.</td>
</tr>
<tr>
<td>LEVOFLOXACIN [Systemic] – WARFARIN SODIUM [Systemic] [Warfarin]</td>
<td>S Major</td>
<td>Excellent</td>
<td>Concurrent use of LEVOFLOXACIN and WARFARIN may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>LEVOHYDROXINE SODIUM [Systemic] [Levothyroxine] – WARFARIN SODIUM [Oral (systemic)] [Warfarin]</td>
<td>Moderate</td>
<td>Good</td>
<td>Concurrent use of ORAL ANTICOAGULANTS and THYROID HORMONES may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>OMEPRAZOLE [Systemic] – WARFARIN SODIUM [Systemic] [Warfarin]</td>
<td>Moderate</td>
<td>Good</td>
<td>Concurrent use of WARFARIN and OMEPRAZOLE may result in elevations of International Normalized Ratio serum values and potentiation of anticoagulant effects.</td>
</tr>
</tbody>
</table>
DrugREAX - gravidade

Contraindicado
Os medicamentos são contraindicados para uso concomitante.

Importante
A interação pode representar perigo à vida e/ou requerer intervenção médica para diminuir ou evitar efeitos adversos graves.

Moderada
A interação pode resultar em exacerbação do problema de saúde do paciente e/ou requerer uma alteração no tratamento.

Secundária
A interação resultaria em efeitos clínicos limitados. As manifestações podem incluir um aumento na frequência ou gravidade dos efeitos colaterais, mas geralmente não requerem uma alteração importante no tratamento.

Desconhecida
Desconhecida.
DrugREAX - documentação

Drug Interaction Results

Excelente
Estudos controlados estabeleceram de modo claro a existência da interação.

Boa
A documentação sugere com veemência a existência da interação, mas faltam estudos controlados realizados de modo adequado.

Razoável
A documentação disponível é insatisfatória, mas as considerações farmacológicas levam os clínicos a suspeitar da existência da interação; ou a documentação é boa para um medicamento farmacologicamente similar.

Desconhecida
Desconhecida.
## Detalhe da interação:
- **Warning**
- **Clinical Management**
- **Onset**
- **Severity**

<table>
<thead>
<tr>
<th>Medicamento-Medicamento Interações (4)</th>
<th>Gravidade:</th>
<th>Documentação:</th>
<th>Resumo:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATORVASTATIN CALCIUM [Systemic] -- DILTIAZEM HYDROCHLORIDE [Systemic] [Diltiazem (Diltiazem Hydrochloride)]</td>
<td>★★★★★ Major</td>
<td>Good</td>
<td>Concurrent use of ATORVASTATIN and DILTIAZEM may result in an increased risk of rhabdomyolysis.</td>
</tr>
<tr>
<td>LEVOFLOXACIN [Systemic] -- WARFARIN SODIUM [Systemic] [Warfarin]</td>
<td>★★★★★ Excellent</td>
<td></td>
<td>Concurrent use of LEVOFLOXACIN and WARFARIN may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>LEVOTHYROIDINE SODIUM [Systemic] [Levothyroxine] -- WARFARIN SODIUM [Oral (systemic)] [Warfarin]</td>
<td>★★★★ Moderate</td>
<td>Good</td>
<td>Concurrent use of ORAL ANTI COAGULANTS and THYROID HORMONES may result in an increased risk of bleeding.</td>
</tr>
<tr>
<td>OMEPRAZOLE [Systemic] -- WARFARIN SODIUM [Systemic] [Warfarin]</td>
<td>★★★★ Moderate</td>
<td>Good</td>
<td>Concurrent use of WARFARIN and OMEPRAZOLE may result in elevations of international normalized ratio serum values and potentiation of anticoagulant effects.</td>
</tr>
</tbody>
</table>

### Documentation
- **Probable Mechanism**
- **Summary**
- **Literature**
- **References**
Clinical Management

Warning:
Concurrent use of LEVOFLOXACIN and WARFARIN may result in an increased risk of bleeding.

Clinical Management:
Use caution with coadministration of levofloxacin and warfarin as concomitant use has been associated with increases in INR or prothrombin time and clinical episodes of bleeding during postmarketing use (Prod Info LEVAQUIN® oral tablets, solution, IV injection, 5% dextrose IV injection, 2008). When possible, substitute levofloxacin for an antibiotic with a low-risk profile for bleeding, such as clindamycin or cephalaxin (Lane et al, 2014). If concomitant use is required, early and more frequent monitoring of the patient's INR is recommended (Lane et al, 2014; Baillargeon et al, 2012), especially during initiation and discontinuation of levofloxacin (Prod Info COUMADIN® oral tablets, intravenous injection powder, lyophilized for solution, 2011). No preemptive warfarin dose reductions are needed (Ahmed et al, 2008).
In a retrospective study of veterans (N=22272), coadministration of warfarin and high-risk antibiotics (those with known interaction with warfarin resulting in increased bleeding risk) significantly increased the risk of hospital admission due to serious bleeding by 48% compared with low-risk antibiotics. In the high-risk antibiotics group, azithromycin significantly increased the risk of bleeding by 93% where as other antibiotics had nonsignificant increases individually (fluconazole had an increased risk of 111%, sulfamethoxazole/trimethoprim 79%, clarithromycin 71%, metronidazole 63%, ciprofloxacin 42%, and levofloxacin 30%) compared with low-risk antibiotics clindamycin and cephalaxin. INR monitoring within 3 to 14 days of antibiotic therapy reduced the risk of serious bleeding (Lane et al, 2014).

Initiation of antibiotics in patients on continuous warfarin therapy resulted in a significantly increased risk of serious bleeding requiring hospitalization according to a nested case-control study of United States Medicare part D beneficiaries aged 65 years and older (n=38,762). Patients on warfarin who received any antibiotic were twice as likely to be hospitalized for bleeding compared with matched controls on warfarin who were not exposed to antibiotics (adjusted odds ratio (aOR), 2.01; 95% CI, 1.62 to 2.5). Additionally, continuous-warfarin users were twice as likely to have a bleeding event that required hospitalization within 60 days of antibiotic exposure compared with non-exposure. Antibiotic exposure greater than 60 days from the index bleed was not significantly associated with increased risk of bleeding. Specific antibiotics with the highest bleeding risk were azole antifungals (aOR, 4.57; 95% CI, 1.9 to 11.03), followed by cotrimoxazole (aOR, 2.7; 95% CI, 1.46 to 5.05), cephalosporins (aOR, 2.45; 95% CI, 1.52 to 3.95), penicillins (aOR, 1.92; 95% CI, 1.21 to 2.07), macrolides (aOR, 1.86; 95% CI, 1.08 to 3.21), and quinolones (aOR, 1.69; 95% CI, 1.09 to 2.62) (Baillargeon et al, 2012).

Concomitant use of levofloxacin and warfarin has been associated with increases in INR or prothrombin
Compatibilidade IV
Compatibilidade IV - acesso
Compatibilidade IV – inserindo medicamentos

- Digite o nome dos medicamentos IV (princípios ativos), em inglês, e passe-os para a caixa ao lado direito.
### Resultados de Compatibilidade IV

#### Y-Site Test Detail

<table>
<thead>
<tr>
<th>Drug Combination</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amiodarone hydrochloride - Diazepam</td>
<td>Não testado</td>
</tr>
<tr>
<td>Amiodarone hydrochloride - Valproate sodium</td>
<td>Não testado</td>
</tr>
<tr>
<td>Amiodarone hydrochloride - Vancomycin hydrochloride</td>
<td>Compatível</td>
</tr>
<tr>
<td>Diazepam - Valproate sodium</td>
<td>Não testado</td>
</tr>
<tr>
<td>Diazepam - Vancomycin hydrochloride</td>
<td>Incompatível</td>
</tr>
<tr>
<td>Valproate sodium - Vancomycin hydrochloride</td>
<td>Incompatível</td>
</tr>
</tbody>
</table>

**Tip:** To see additional information on IV Solutions compatibility, select a single drug from the list and choose Update.
Detalhes da incompatibilidade

- Diluentes utilizados, Compatibilidade física, período do estudo, método, etc
Monografia do produto IV – acesso

Resultados de Compatibilidade IV

Tip: To see additional information on IV Solutions compatibility, select a single drug from the list and choose Update.

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<th>Rating</th>
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</tr>
<tr>
<td>Valproate sodium - Vancomycin hydrochloride</td>
<td>Incompatível</td>
</tr>
</tbody>
</table>
Monografia do produto IV

Documento do produto com informações sobre:
- pH range
- Formulation
- Reconstitution
- Osmolality
- Storage
- Maximum Stability

pH effects
Interaction with plastics
etc
**Interaction with Plastics** (0031; 1443; 2660; 2792; 8999; 9739; 9740)

Sorption:
Amiodarone hydrochloride 1 to 6 mg/mL in dextrose 5% has demonstrated loss due to sorption to flexible polyvinyl chloride (PVC) plastic containers. The loss exceeded 10% after 2 hours of contact; another study found 25% loss in 24 hours at room temperature.

No loss due to sorption occurred with glass, polyolefin, and rigid PVC (PVC Container Corporation) containers. The manufacturer recommends the use of glass or polyolefin containers for infusions that are in contact for more than 2 hours.

The drug is also lost to PVC infusion sets, but the manufacturer indicates that the loss is accounted for in their dosage recommendations. Consequently, the use of PVC administration sets is permitted but the recommended dosage must be followed.
Monografias

- Selecione a aba Drug Monographs
- Selecione o tipo de paciente (Neonatal ou Pediatric)
- Digite o nome do medicamento em Alpha Filter ou busque na tabela Drug
### Furosemide

<table>
<thead>
<tr>
<th>Dose</th>
<th>Administration</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring</td>
<td>Black Box Warning</td>
<td>Contraindications/Precautions</td>
</tr>
<tr>
<td>Adverse Effects</td>
<td>Pharmacology</td>
<td>Special Considerations/Preparation</td>
</tr>
<tr>
<td>Solution Compatibility</td>
<td>Terminal Injection Site Compatibility</td>
<td>Terminal Injection Site Incompatibility</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Dose - Furosemide

**Initial Dose:** 1 mg/kg IV, IM, or orally. May increase to a maximum of 2 mg/kg/dose IV or 6 mg/kg/dose orally.

**Initial Intervals:**
- Premature infant: every 24 hours.
- Full-term infant: every 12 hours.
- Full-term infant older than 1 month: every 6 to 8 hours.
- Consider alternate-day therapy for long-term use.

#### Administration - Furosemide

Administer a 2 to 10 mg/mL concentration of furosemide over 15 to 30 minutes [1].

#### Uses - Furosemide

**Chronic lung disease, adjunct:** Diuretic that may also improve pulmonary function [2]. Based on results from a systematic review of the use of furosemide in infants with (or developing) chronic lung disease (CLD), furosemide was...
Calculadoras de Dose

- Selecione a aba Dosing Calculators
Calculadoras de Dose

- Data de nascimento
- Tipo de população (recomendações)
- Tempo gestacional
- Peso
Calcularadoras de Dose

- Dados demográficos do paciente ficam salvos

- Digite o nome do medicamento em Alpha Filter ou busque na tabela Drug
Calculadoras de Dose

- Escolha o uso, a rota, e informe dose, tempo de administração e concentração do medicamento e clique em Calculate
Se a dose for maior do que a recomendada, o sistema dá um alerta.
Calculadoras de Dose

- Clique em Print para imprimir o cálculo e ver informações adicionais
Busca por inteligência artificial – IBM Watson
Faça a pergunta sobre medicamentos de forma natural, em inglês.
Here is the administration information for duloxetine hydrochloride:

**Oral**

- Delayed-release capsules should be swallowed whole; do not chew, crush, or open capsules.
- Patients with difficulty swallowing: In an in-vitro study, the enteric-coated pellet contents of a 20-mg duloxetine delayed-release capsule maintained potency and dissolution for up to 2 hours when mixed in 30 mL of apple sauce (pH = 3.5) or apple juice (pH = 3.5) at room temperature, provided that the pellet integrity was maintained and not crushed, chewed, or broken. However, exposure of duloxetine pellets to chocolate pudding (pH = 5.5 to 6) for 30 minutes altered the integrity of the pellet’s enteric coating.
- Take without regard to meals

![Quick Answers Administration for Duloxetine Hydrochloride](image)

![In-Depth Answers Administration for Duloxetine Hydrochloride](image)

- Watson compreende a pergunta e busca a resposta direta, dentro do Micromedex
- É possível dar feedback ao Watson caso ele erre a resposta
Usuários – o que queremos deles?

- Feedback do uso
- Sugestões de melhorias
- Procuram alguma informação e não encontram?
Obrigado!

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