

UpToDate 施設契約のお客様へ

<「薬物相互作用（Drug Interactions）」機能活用方法>

UpToDate には非常に便利な機能が多数搭載されており、その中の一つが「薬物相互作用（Drug Interactions）」です。UpToDate の説明会や、ウェビナーなどでも少しだけ機能を説明させて頂く事がありますが、あまり知られていないかもしれませんので、この機会にじっくりとその機能と使用方法をご説明致します。

はじめに、「薬物相互作用」は UpToDate の姉妹製品である Lexicomp から情報を得ています。複数の薬剤名を入力し、瞬時に各薬剤の相互作用を確認できる便利な機能となっております。こちらは、薬剤業務に従事する薬剤師の先生方だけでなく、医師やその他コメディカルの方々にもご活用頂けます。

医師の先生方には、患者さんに新たに薬剤を処方する時や、ほかの病院、クリニックで処方されている薬剤と相互作用が無いか確認する際などにお役に立つと思います。使用している薬剤に相互作用の結果があっても、ベネフィットが上回っていれば使用継続となるケースもあるかと思いますが、コメディカルの方々も、その際にこういった相互作用が起こるのか把握しておく事で日々の業務にお役立て頂けるのではないかと思います。

それでは、ステップに分けて使用方法をみていきましょう。

- 1) メニューバーの「薬物相互作用」(①)をクリックする。トピックを見ている時であれば、右上にメニューバーが最小化(②)されているので、メニューバーを表示させてからご利用ください。

The screenshot shows the UpToDate website's navigation bar. The 'UpToDate' logo is on the left. The navigation bar contains several items: 'コンテンツ' (Content), '計算ツール' (Calculators), '薬物相互作用' (Drug Interactions), and 'UpToDate Pathways'. The '薬物相互作用' item is circled in red and labeled with a circled '1'. Below the navigation bar, there is a search bar and a '検索' (Search) button. On the right side, there is a user profile icon and a 'Menu' button, which is also circled in red and labeled with a circled '2'. A red arrow points from the 'Menu' button to the '薬物相互作用' item in the navigation bar. To the right of the 'Menu' button, the text 'カーソルを合わせる' (Align the cursor) is written. Below the navigation bar, there is a search bar and a '検索' (Search) button. The main content area shows a snippet of text related to knee osteoarthritis treatment.

2) 免責事項の記載を確認し、「Continue」をクリックして進む。

UpToDate®

Welcome to Drug Interactions: A Drug-Drug, Drug-Herb, and Herb-Herb analysis tool, provided by UpToDate utilizing Lexicomp clinical content.

Lexi-Interact Online combines literature and scientific understanding of drug interactions throughout the world with a state-of-the-art electronic platform, providing an efficient way to help inform healthcare professionals about adverse drug events that otherwise can compromise the care of patients.

Review all interactions for a selected medication or enter a patient specific regimen to analyze for potential interactions. Additionally, you may select a drug interaction result to obtain specific information on Patient Management, Interacting Members, Risk Rating, References and more.

Disclaimer: UpToDate publishes summary drug information in this reference resource for use by healthcare professionals in the course of their professional practice. The content in this resource is intended only to supplement - not substitute for or replace - the knowledge and judgment of physicians, nurses, pharmacists and other healthcare professionals regarding drug therapy and patient-specific health conditions.

The content is published based upon publicly available sources generally viewed as reliable in the healthcare community, including specifically pharmaceutical manufacturer labeling, information published by regulatory agencies and primary medical literature. UpToDate does not engage in any independent review, testing or study of any medication, medical device, condition, illness, injury, test, procedure, treatment, or therapy in connection with the publication of the content. The content is not intended to explicitly or implicitly endorse any particular medication as safe or effective for treating any particular patient or health condition.

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Continue

3) 「Enter item name」に薬剤名を入力 (③)

入力は英語で、薬剤の一般名、OTC（主にアメリカでの市販薬名）、ハーブや食材（緑茶、グレープフルーツジュースなど）を入力。数文字入力すると候補が出ます。(④)

UpToDate®

Lexicomp® Drug Interactions

Add items to your list by searching below.

Enter item name ③

ITEM LIST

Clear List Analyze

UpToDate®

Lexicomp® Drug Interactions

Add items to your list by searching below.

aspi ④

- Aspirin
- Aspirin Adult Low Dose [OTC]
- Aspirin Adult Low Strength [OTC]
- Aspirin and Caffeine
- Aspirin and Calcium Carbonate

4) Analyze のボタン (⑤) を押すと、すぐに結果が表示されます。

UpToDate®
Lexicomp® Drug Interactions

Add items to your list by searching below.

Enter item name

ITEM LIST

Clear List Analyze

Aspirin
Loxoprofen
Ciprofloxacin (Systemic)
Nitroglycerin
Urokinase
Green Tea

Display complete list of interactions for an individual item by clicking item name.

X Avoid combination	C Monitor therapy	A No known interaction
D Consider therapy modification	B No action needed	More about Risk Ratings

6 Results

Filter Results by Item Print

X	Urokinase Aspirin (Agents with Antiplatelet Properties)
X	Urokinase Loxoprofen (Agents with Antiplatelet Properties)
D	Aspirin (Salicylates) Loxoprofen (Nonsteroidal Anti-Inflammatory Agents (Nonselective))
C	Ciprofloxacin (Systemic) (Quinolones) Aspirin
C	Ciprofloxacin (Systemic) (Quinolones) Loxoprofen (Nonsteroidal Anti-Inflammatory Agents)
B	Nitroglycerin Aspirin

DISCLAIMER: Readers are advised that decisions regarding drug therapy must be based on the independent judgment of the clinician, changing information about a drug (eg, as reflected in the literature and manufacturer's most current product information), and changing medical practices.

5) 相互作用の結果は X から順 (⑥) に並びます。それぞれの結果 (⑦) をクリックする事で、詳細な相互作用の内容 (⑧) を確認できます。

UpToDate®
Lexicomp® Drug Interactions

Add items to your list by searching below.

Enter item name

ITEM LIST

Clear List Analyze

Aspirin
Loxoprofen
Ciprofloxacin (Systemic)
Nitroglycerin
Urokinase
Green Tea

Display complete list of interactions for an individual item by clicking item name.

Title Salicylates / Nonsteroidal Anti-Inflammatory Agents (Nonselective)

Risk Rating D: Consider therapy modification

Summary Nonsteroidal Anti-Inflammatory Agents (Nonselective) may enhance the adverse/toxic effect of Salicylates. An increased risk of bleeding may be associated with use of this combination. Nonsteroidal Anti-Inflammatory Agents (Nonselective) may diminish the cardioprotective effect of Salicylates. Salicylates may decrease the serum concentration of Nonsteroidal Anti-Inflammatory Agents (Nonselective). **Severity** Moderate **Reliability Rating** Good

Patient Management Monitor for increased risk of bleeding during concomitant use of nonselective nonsteroidal anti-inflammatory drugs (NSAIDs) and salicylates. Ibuprofen, and possibly other nonselective NSAIDs, may reduce the cardioprotective effects of aspirin. It seems prudent to avoid regular, frequent use of ibuprofen in patients receiving aspirin for its cardioprotective effects. Alternative analgesics (eg, acetaminophen) may be a safer choice. Patients may require counseling about the appropriate timing of ibuprofen and aspirin dosing. Ibuprofen should be administered 30-120 minutes after immediate release aspirin, 2 to 4 hours after extended release aspirin, or at least 8 hours before aspirin.

Nonsteroidal Anti-Inflammatory Agents (Nonselective) Interacting Members Aceclofenac, Acemetacin, Dexibuprofen, Dexketoprofen, Diclofenac (Systemic), Diflunisal, Dipyrrone, Etodolac, Fenoprofen*, Flurbiprofen (Systemic), Ibuprofen*, Indomethacin*, Ketoprofen, Ketorolac (Nasal), Ketorolac (Systemic), Lornoxicam, Loxoprofen, Meclufenamate*, Mefenamic Acid, Meloxicam, Nabumetone, Naproxen*, Oxaprozin, Pelubiprofen, Phenylbutazone, Piroxicam (Systemic)*, Propyphenazone, Sulindac*, Tenoxicam, Tiaprofenic Acid, Tofenamic Acid, Tolmetin*, Zaltoprofen

Salicylates Interacting Members Aminosalicilic Acid, Aspirin*, Bismuth Subsalsicylate, Choline Salicylate, Magnesium Salicylate, Salsalate, Sodium Salicylate, Triflusal

Exception Choline Magnesium Trisalsicylate

* Denotes agent(s) specifically implicated in clinical data. Unmarked agents are listed because they have properties similar to marked agents, and may respond so within the context of the stated interaction.

Discussion The combination of a salicylate and a nonsteroidal anti-inflammatory drugs (NSAIDs) may increase the risk of gastrointestinal bleeding. Further, aspirin has been noted to decrease serum concentrations of a variety of NSAIDs, sometimes by more than 50% (eg, flurbiprofen).^{1,2,3,4,5,6,7,8,9,10,11,12} These interactions appear to be of minimal clinical significance. The mechanism(s) for these interactions are likely related to the potential for aspirin to displace the NSAID from plasma protein binding sites, thus increasing the potential for its elimination. The clinical effect of this interaction may be muted by the combined effect of a relative increase in free (unbound) NSAID, and the anti-inflammatory activity of aspirin.

6) 相互作用の結果はこちらをご参照ください。(9) にカーソルを合わせますと、相互作用結果の詳細(10) が表れます。

The screenshot shows a legend at the top with five categories: X (Avoid combination), D (Consider therapy modification), C (Monitor therapy), B (No action needed), and A (No known interaction). A red box labeled (9) highlights a dropdown menu next to the legend. Below the legend, a detailed view of an interaction is shown, circled in red and labeled (10). This view includes the interaction level (X), a description in English, and a Japanese translation: 禁忌 (Contraindication). Other levels shown include D (治療内容を変更 - Change treatment content), C (経過観察 - Monitor course), B (アクション不要 - Action not required), and A (相互作用無し - No interaction).

7) 一つの薬剤名をクリック(11)することで、その特定の薬剤に対して相互作用を起こす全ての薬剤リスト(12)を確認することもできます。

The screenshot shows the Lexicomp Drug Interactions interface. On the left, there is a search bar and an 'ITEM LIST' containing several drug names. A red box labeled (11) highlights the 'Aspirin' entry in the list. On the right, a large red box labeled (12) highlights the '107 Results' list, which shows various drug interactions with Aspirin, each marked with an 'X' or 'D' icon.

<Lexicomp Drug Interactionを用いた研究事例>

薬物相互作用をご活用頂き、下記のような論文も執筆されております。ご活用例の参考となりましたら幸いです。



日本医療薬学会の学会誌「医療薬学」にて掲載

「医療薬学」Vol47 No8

Lexicomp Drug Interactions を用いたリハビリテーション病棟における潜在的な薬物相互作用の調査

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「医療薬学」Vol46 No10

Lexicomp Drug Interactions を用いた集中治療室における潜在的な薬物相互作用の調査

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