

Reliable cancer drug interactions checker

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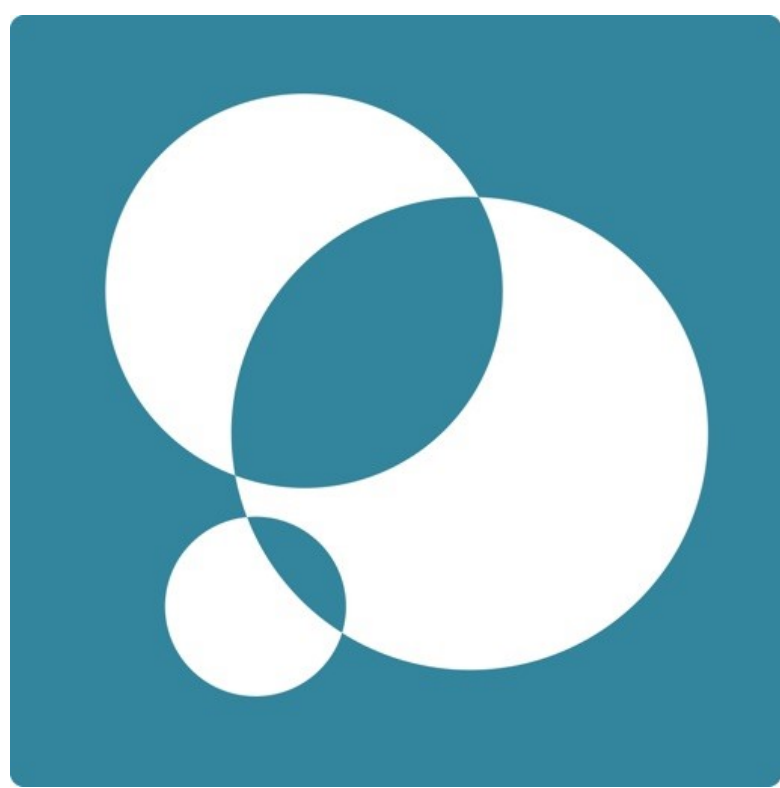
Introduction

Betsi Cadwaladr University Health Board is the largest health board in Wales. The Medicines advice team provide an evidence based enquiry answering service to 3 acute general hospitals in North Wales, which include 3 cancer service facilities, 152 GP surgeries and other community hospitals.

Currently, the pharmacy staff working in these cancer centres rely on the **Liverpool University Cancer Drug Interactions Website**. They use it as their main source of information during medicine management tasks for inpatients and outpatients.

However, as of September 30th 2023, the website will be archived indefinitely due to lack of sustainable long-term funding, raising concerns about other consistent and reliable resources available to the pharmacy teams.

Focal Points



- Huge reliance on the Liverpool Cancer Drug Interactions website as a resource for checking the safety of medication in cancer patients.

- Clear need for available, consistent and reliable resources to healthcare professionals to avoid unnecessary increase in work pressures within the Medicine Advice department.

- Large variation in advice from alternative resources available.



Method

A review of five recent drug interaction reports took place, using resources commonly available to the Medicine Advice Pharmacy Team, to identify which one was the most consistent and comparable with the Liverpool Website. The resources included:

- **DrugReax interaction checker** on **Micromedex**, accessed via a national subscription
- **Stockley's Drug Interactions**, accessed using a Medicines Information subscription
- **British National Formulary (BNF)** interactions checker, freely accessible
- **Lexicomp Drug Interactions**, available through a Health Board subscription of **UpToDate**.

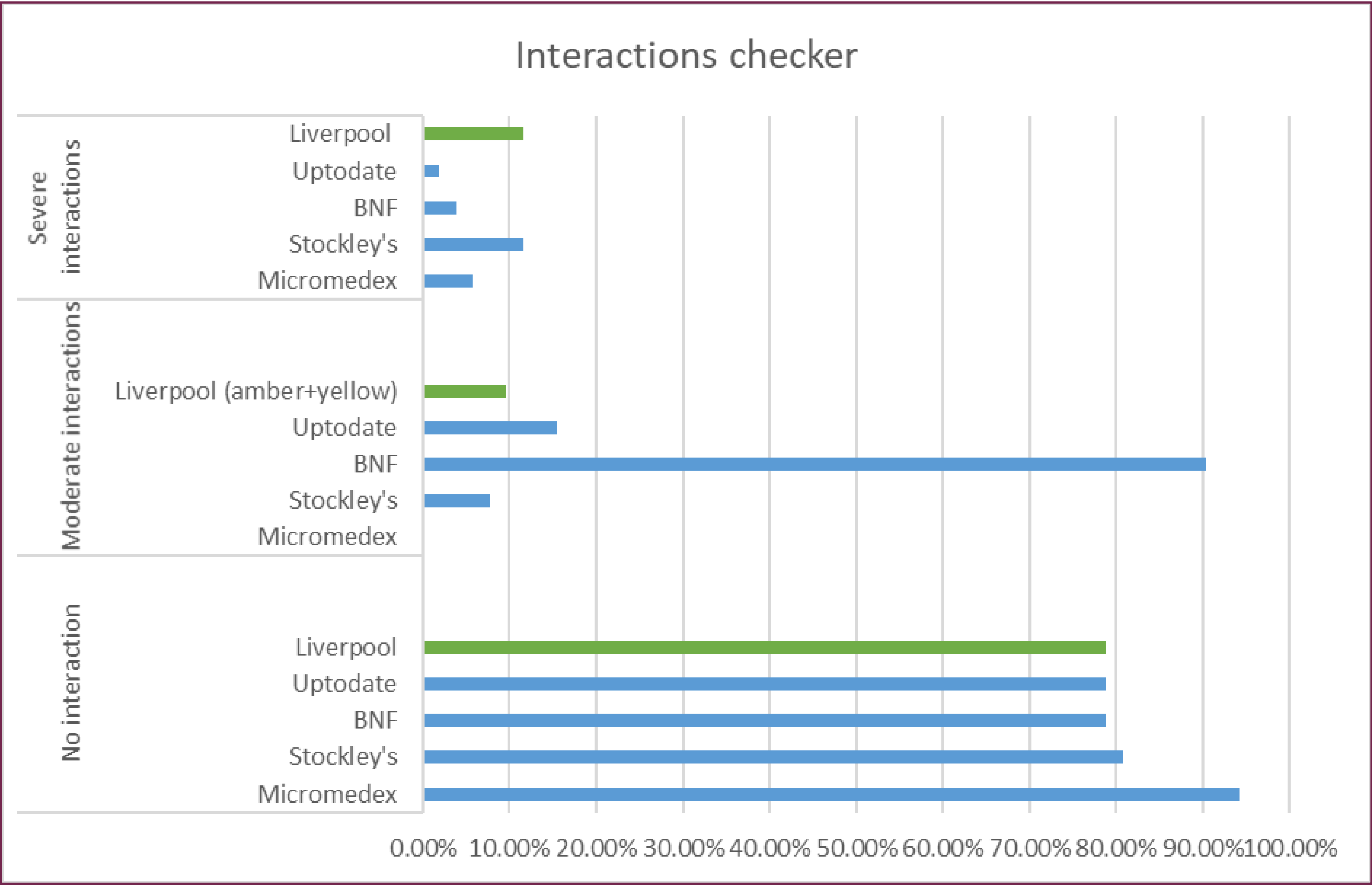
Results

Micromedex and BNF seem to be the two least reliable resources for interactions. On average, they found no interaction 92.3% of the time; major interactions 4.8% of the time. BNF found 5.76% of the time moderate interaction whereas Micromedex found none.

In comparison, the Liverpool Cancer Drug Interaction website found no interaction 78.84% of the time, major interactions 11.53% of the time and moderate to severe interaction 9.6% of the time.

Stockley's seems to be the one resource with similar findings, with no interaction at 80.76%, major interaction 11.53% and moderate interaction 7.7% of the time.

Lexicomp found no interaction 78.84% of the time, major interaction 1.92% of the time and moderate interaction 19.22% of the time.



Closest to existing resource

Discussion

There is concerns that all resources commonly used vary hugely in their advice regarding drug interactions. Some seem very cautious, recommending further monitoring or stopping treatment altogether, where others do not seem to have any issues at all.

The reliance on one trusted website, Liverpool Cancer Drug Interactions, for a number of years has meant that healthcare professionals do not know where else to look for quick and reliable information. This means that until such resource is available again, healthcare professionals will be relying on the Medicine Advice department for their complex drug interactions enquiries putting further unnecessary pressure on the service.

However, the University of Liverpool has been able to make an **archived version** of the interaction checker available to maintain a limited service. However, the content of the interaction checker was last updated in June 2022, so it is the responsibility of the user to assess the clinical relevance of the archived data and the risks and benefits of using such data.

