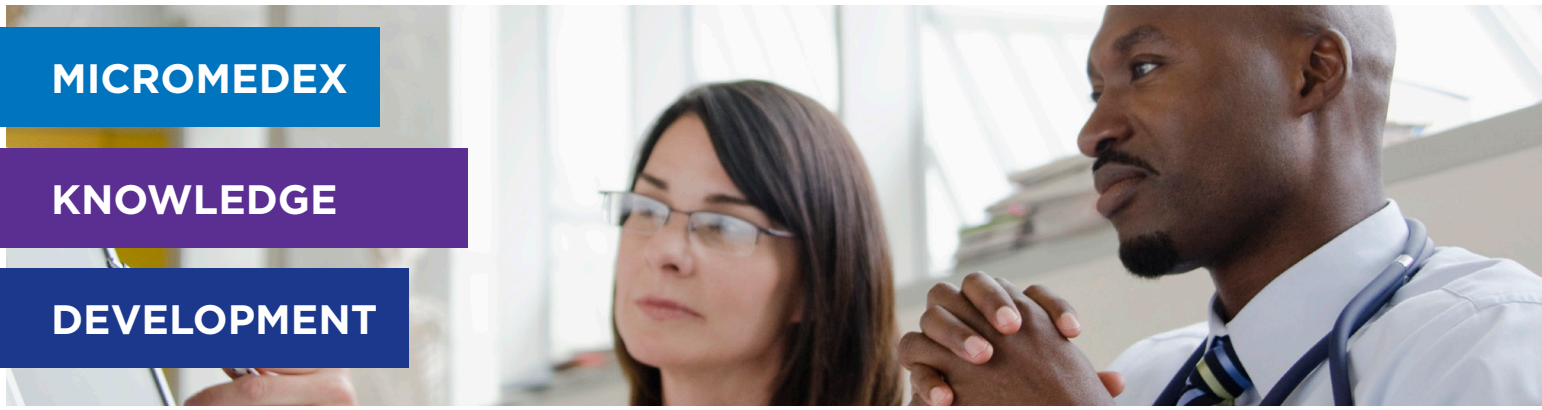
TRUVEN HEALTH ANALYTICS™

MICROMEDEX KNOWLEDGE DEVELOPMENT



MICROMEDEX KNOWLEDGE DEVELOPMENT

- Multi-step editorial process and documented policies
- Surveillance and critical evaluation of primary literature
- In-house team of 90+ clinically-trained editorial staff
- Single editorial group and process ensures consistent content
- In-line referencing and supporting studies provides transparency
- Consistent coverage of off-label indications and therapeutic use
- Strength of efficacy and evidence ratings to aid decisions

Editorial policies and procedures to facilitate the practice of evidence-based healthcare.

Our proven processes and rigorous training of in-house editorial staff are unparalleled. Because our clinicians complete extensive evaluation and synthesis of the literature and assess information across multiple content areas, customers can be confident that Truven Health Micromedex® Clinical Knowledge Solutions contain the most clinically accurate, relevant, and consistent information available.

Editorial Governance

Micromedex content is developed in accordance with documented editorial policies and procedures to facilitate the practice of evidence-based healthcare.

Ongoing surveillance and critical evaluation of the world's biomedical literature and regulatory actions are at the foundation of our processes. We identify the highest level of relevant evidence for a given topic to assist clinicians in making patient care decisions. The gold-standard randomized controlled trial is not always appropriate or feasible.

For instance, the evidence supporting treatments for pediatric and rare diseases is often limited to small clinical trials, and management of toxicological exposure is generally determined based on observational information gathered from case reports and case series. Content is reviewed for clinical accuracy and relevance. Critical content areas may undergo an additional review by members of our Editorial Board.

Ongoing surveillance and evaluation of the world's biomedical literature and regulatory actions are at the core of our content

After critical evaluation and selection of literature, we integrate new evidence into existing Micromedex content that provides actionable new information (e.g., diagnostic criteria, dosing regimen, unique population, monitoring, and precaution), strengthens existing data, or has the potential to change the current recommendations. We consider evaluating the addition of new off-label indications with adequate information when the treatment represents a significant advancement over current therapies, the indication is a serious or life-threatening condition, or limited alternative treatments exist.

In-House Editorial Staff

Our team of 90+ in-house editorial staff consists primarily of clinicians, including physicians, clinical pharmacists, nurses, and other allied health professionals, as well as medical librarians and an expert in research methodology. This highly trained staff is responsible for the multistep process leading to the creation of unbiased content in Micromedex.

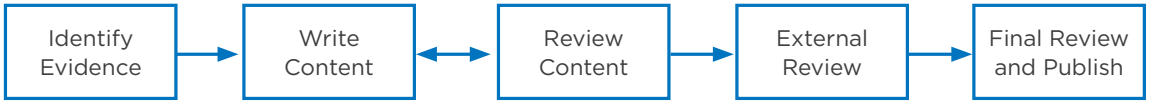
Ongoing training by our in-house research methodology expert, along with continual statistical analysis training, ensures critical evaluation. Our clinical writers and clinical content specialists work across drug, disease, toxicology and patient education content areas so the guidance found in Micromedex can be relied upon to be consistent across all content sets.

Literature Evaluation

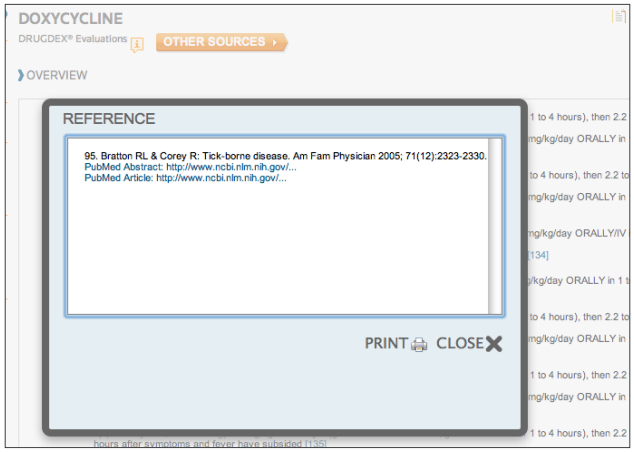
Extensive training by an in-house expert in research methodology ensures that our editorial staff is equipped to critically evaluate clinical research by assessing the appropriateness of the statistical analyses and methodological rigor of a study. In the evaluation of literature, our editors are trained to assess the appropriateness of several crucial components:

- **Study design**: Many factors influence selection of an appropriate study design (e.g., ethics related to withholding established treatments for life threatening conditions, feasibility of obtaining an adequate number of study participants, practicality of waiting for an outcome to occur). A retrospective observational study is not the appropriate design to assess the effectiveness of a drug to treat hypertension because it is common, has many established treatment options, and garners results in a short period of time. However, this design may be appropriate for pediatric glioblastoma, which is rare, life threatening, and often difficult to obtain parental consent for study participation.
- **Study participants**: Study participants should have the disease of interest, but not conditions that might interfere with the treatment or evaluation of the disease of interest. For instance, a study of a treatment for depression should avoid enrolling patients who are also on drugs that can worsen depression.

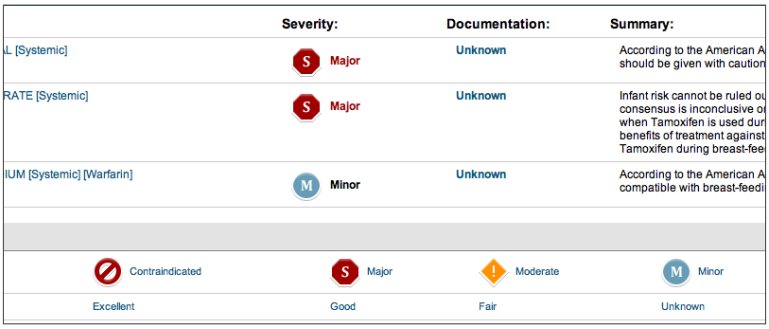
Figure 1: Micromedex Knowledge Development Process



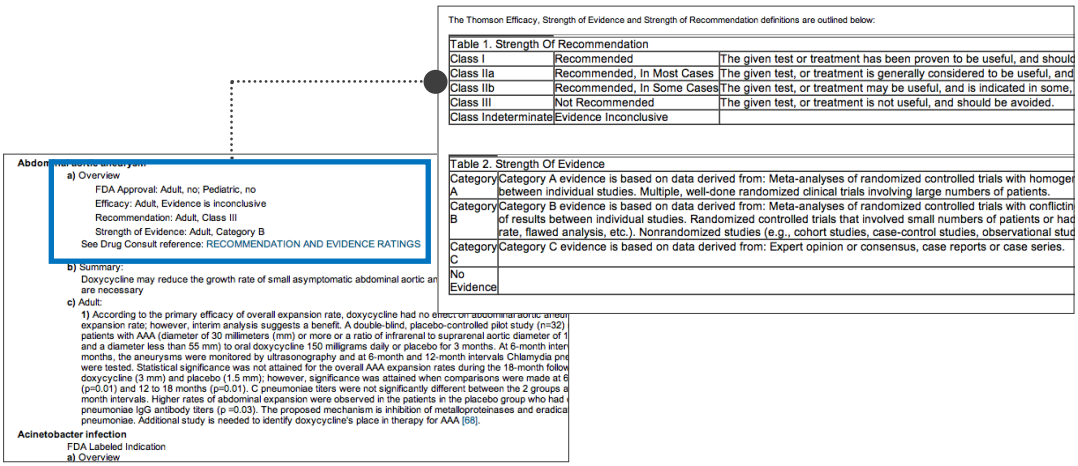
- **Statistical methodology**: Enrolling an insufficient number of participants or employing the incorrect statistical tests invalidates results.
- **Conclusions based on predefined objectives and outcomes**: Results should address and focus on all predefined endpoints rather than additional findings from secondary analyses, which may indicate data dredging. Furthermore, authors' conclusions should be supported by actual data and not influenced by bias.



In-line referencing and links to primary literature



Simple icons for fast answers



Evidence ratings and recommendations

Why Micromedex?

We don't always recommend a therapy. When evidence indicates a drug or other treatment is not effective, we incorporate this information as well to guide clinicians to reject the therapy.

We won't include everything. Our editorial staff is trained to select the highest quality literature to include in our content, and to reject poor quality literature that should not be used to make treatment recommendations.

We go beyond the basics to get you closer to the answer. If controversial issues surrounding drugs and treatment are clinically relevant, we'll cover those too, to help you with the complex, out-of-the-ordinary questions. Simple icons, unique evidence ratings and actionable recommendations summarize the full body of evidence to help you make critical decisions faster.

FOR MORE INFORMATION

To learn more about Micromedex solutions, visit **truvenhealth.com** or email us at **globalhealthcare@truvenhealth.com**

TRUVEN HEALTH ANALYTICS™

ABOUT TRUVEN HEALTH ANALYTICS

Truven Health Analytics delivers unbiased information, analytic tools, benchmarks, and services to the healthcare industry. Hospitals, government agencies, employers, health plans, clinicians, pharmaceutical, and medical device companies have relied on us for more than 30 years. We combine our deep clinical, financial, and healthcare management expertise with innovative technology platforms and information assets to make healthcare better by collaborating with our customers to uncover and realize opportunities for improving quality, efficiency, and outcomes. With more than 2,000 employees globally, we have major offices in Ann Arbor, Mich.; Chicago; and Denver. Advantage Suite, Micromedex, ActionOI, MarketScan, and 100 Top Hospitals are registered trademarks or trademarks of Truven Health Analytics.

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