Hypertension in Older Adults

Considerations For Enhancing Benefits And/Or Minimizing Risks Of Therapy
A few highlights from *Geri-RxFiles*

1) **Ensure blood pressure reading is accurate!**
   a. 5 minute rest prior to measuring
   b. Arm supported – heart level
   c. Feet flat on floor; legs uncrossed
   d. Appropriate BP cuff size

   Ě *The first place where the potential to over-treat can be prevented!*

2) **If the older person is dizzy, unsteady or falling, reassess BP meds and BP targets!**
   a. BP targets have been relaxed somewhat for older individuals (age >80) due to lack of evidence for benefit and increased risk of harm with more aggressive treatment targets.
   b. Guideline targets >80yrs[i]:
      i. <150mmHg over <90mmHg (may be lower in diabetes/target organ damage)
   c. Individualize the target. Depending on exact situation, consideration for significant adverse effects from antihypertensive therapy will often trump any potential benefits.

   Ě *Let the target serve the patient, not the patient the target!*

3) **Remember the J-curve or "Goldilocks Principle" for treating hypertension!**
   a. Harms of sustained too-high BP seen especially >160mmHg systolic
   b. Harms of too-low BP seen especially:
      i. <60mmHg diastolic for ą stroke & CVD risk[ii,iii] (concern especially if pre-existing CVD and systolic hypertension present)
      ii. <70-75mmHg for overall mortality

   Ě *Not too much, not too little, but just right!*

4) **Hypertensive urgency is <u>not</u> an emergency. Target a BP Ć of ~ 25% over 24-48 hours.**
   a. Assess any drug causes (e.g. NSAIDs, non-compliance with antihypertensives).
   b. Use non-drug measures 1st.
   c. Adjust or add antihypertensive carefully, and only if necessary.
   d. While an option, short-term clonidine is easily overused & can be problematic

   Ě *Gradual reduction is not only adequate but often safer!*

5) **Pedal edema / ankle swelling is common with CCBs such as amlodipine. But…**
   a. Consider if a dose is too high; if so, reduce. Or, consider a drug substitution.
   b. A little swelling is OK, and reassurance is often all that is necessary.
   c. It is easy to over-treat with furosemide, putting person at risk of essential dehydration, metabolic abnormalities, etc.

   Ě *Therefore, beware of this common start to a prescribing cascade!*
   (CCB Ě furosemide Ě K+ supplements…)

---

[i] Canadian Hypertension Education Program. 2014 CHEP. Recommendations for Hypertension Treatment. Access online 11 March, 2014 at http://www.hypertension.ca/images/CHEP_2014/2014_CompleteCHEPRecommendations_EN_HCP1009.pdf or http://www.hypertension.ca/en/professional/chep/therapy/hypertension-without-compelling-indications

[ii] SHEP Cooperative Research Group. Prevention of stroke by antihypertensive drug treatment in older persons with isolated systolic hypertension. Final results of the Systolic Hypertension in the Elderly Program (SHEP). JAMA 1991;265(24):3255-64.

iii Does extreme dipping of nocturnal blood pressure in elderly hypertensive patients confer high risk of developing ischemic target organ damage from antihypertensive therapy?*Kario K, Pickering TG. Arch Intern Med. 2000 May 8; 160(9):1378.*

AN ORIENTATION TO THE GERI-RXFILES: ASSESSING MEDICATIONS IN OLDER ADULTS

Purpose

The Geri-RxFiles was created to assist health care professionals in assessing medication use in older adults. It is also intended to highlight potentially problematic medications in older adults based on the Beers Criteria, the STOPP Criteria, & others.

The Beers Criteria & STOPP Criteria

The Beers Criteria is a list of "potentially inappropriate" drugs in older adults; these criteria have evolved to include discussion of various clinical factors that need to be included in the equation. A similar list is **The STOPP Criteria** (STOPP = Screening Tool of Older Persons' potentially inappropriate Prescriptions). Medications from these two lists are highlighted throughout the Geri-RxFiles to allow for easy identification. Additional medications not identified within these two lists, but potentially problematic are indicated by **RxFiles**.

Familiarizing Yourself with the Geri-RxFiles

Table of Contents

Here you will find a list of all the topics & their corresponding page #s or sections.

Introduction

The *Introduction* discusses drug therapy in older adults, highlighting various considerations for optimal prescribing & deprescribing. Practical ideas are provided to help health care providers optimize drug therapy in the older adult population including how to avoid common pitfalls like prescribing cascades.

Acknowledgements

In this section, we acknowledge all the individuals who contributed to the Geri-RxFiles. Their input provides invaluable perspectives & real-life experience making the Geri-RxFiles a more usable tool.

Therapeutic Topics (Section 1 to 36)

Seven systems are covered in the Geri-RxFiles including: cardiology, endocrine & metabolic, gastrointestinal, genitourinary, musculoskeletal & connective tissue, neurology & psychiatry, & finally respiratory. A variety of miscellaneous topics are also covered. The therapeutic topics cover both an approach to assessing & optimizing the disease or condition, as well as highlights medications that may be potentially problematic in older adults. A more detailed description is contained in the section entitled "*The Anatomy of a Geri-RxFiles Therapeutic Topic*".

Tapering Information (Section 37)

Ċ This symbol indicates that a medication should be tapered upon discontinuation. Within the tapering section you will find the rationale for tapering a medication, common withdrawal symptoms, & a suggested tapering approach. This section is divided by medication classes, with the exception of clonidine.

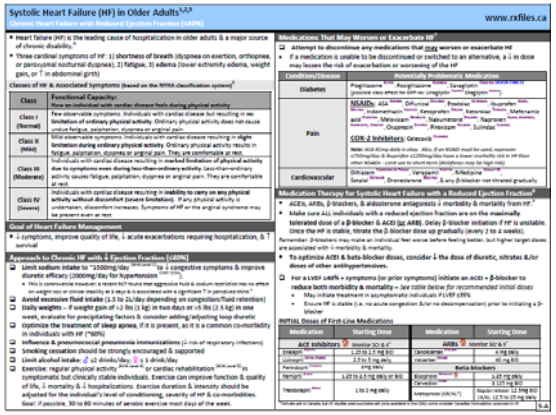
Indices (Section 38 & 39)

In these sections you will find what all the acronyms stand for, & in the *Key Words Index*, you will find fey terms related to drugs (both brand & chemical name), diseases, & trials.

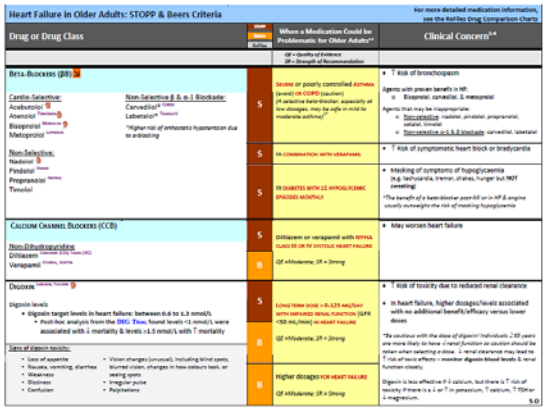
Appendices (Sections 40 to 42)

The Appendices contain other RxFiles resources that compare anticoagulants or anti-hyperglycemic using a traffic light colour comparison. Time-to-benefit & other select considerations are also highlighted.

The Anatomy of a Geri-RxFiles Therapeutic Topic



The first section of most therapeutic topics provides a step-wise approach to assessing a disease/condition including exploring potential contributors such as other medical conditions or medications. This section also discusses the non-pharmacological & medications treatments options.



The second section of most therapeutic topics is a table of the potentially problematic medications used in the treatment of the disease/condition. This section indicates if the medication appears on either the **Beers** or **STOPP** Criteria, in whom the medications are problematic, & other clinical concerns.

Symbols

Ċ These medications must be tapered upon discontinuation (see Section 37)

These medications are renally eliminated & may require a dose adjustment in renal impairment

Colours within Geri-RxFiles

A "traffic light" approach when highlighting different medications or key points.

Green – Go!

A first-line choice. Likely well tolerated with few concerns (adverse effects, drug interactions) or perhaps has the best evidence

Yellow – Caution, slow down!

Careful with these medications. Monitor closely for adverse events.

Red – Stop, re-evaluate!

Determine if there are better alternatives. These medications are likely best avoided. Risks likely outweigh the benefits.