

## Episode 39-41: Pearls for the use of Biologics with Dr. Krishnamurthy

- A biologic is a medication or product that comes from a living organism - in the case of the treatment of many dermatologic conditions, this often involves antibodies
- Not all medications with the same targets have the same efficacy

### Classifications of Biologics

- **TNF- $\alpha$  inhibitors** - etanercept, adalimumab, infliximab, certolizumab
  - Blockage of TNF- $\alpha$  is important for treatment of TH1 mediated diseases such as psoriasis and other rheumatologic conditions
  - These agents block a huge cascade of inflammatory mediators
- **IL-12/12-23 inhibitors** - ustekinumab
  - Ustekinumab blocks a smaller part of the same pathway as TNF-  $\alpha$  inhibitors, which decreases safety concerns
- **IL-23 inhibitors** and **IL-17 inhibitors** block an even more specific part of the pathway
- Order of pathway (downstream) TNF- $\alpha$   $\rightarrow$  IL-23  $\rightarrow$  IL-17
  - IL-17 inhibitors are great, but carry black box warnings for IBD and may be associated with depression
  - IL-23 inhibitors are newer and block IL-17 in the skin and the joints
- The amount of blockage needed depends on each psoriasis patient and their individual needs
- Consider a patient's individual candidacy for a biologic therapy (objective and subjective criteria)
  - Objective: moderate-to-severe plaque psoriasis not controlled with topical or other therapies
    - PASI (Psoriasis Area and Severity Index) scores and BSA (Body Surface Area) - must be documented!
      - BSA: palmar surface of hand (including fingers) represents 1% BSA
        - < 3% = mild

- 3% - 10% = moderate
- > 10% = severe
- PASI score: scored from 0-72 points, scoring system considers BSA and the quality of the skin lesions
  - A score of 10 or greater = severe
  - Can also be upgraded to severe with involvement of "special sites" such as palms and genitalia
  - Ask about joint pain!
- Patient age: depending on the agent, biologics can be used as treatments for patients as young as four
- Subjective:
  - "Patient buy in": How does the patient feel about the medication? Will they use it? What are their biases?
  - Consider asking the patient what things their psoriasis prevents them from doing? How important is it to them to do those things?
  - With regards to fear of side effects- can ask patients why they are so worried about a disease/side effect that could happen versus the disease they currently have
  - Plant the seed- the patient may consider the medication in the future even if they don't want to do it today

### Other Considerations for Prescribing Biologics

- Know the black box warnings
  - For all biologics- need to screen all patients for tuberculosis
  - For TNF- $\alpha$  inhibitors- screen for Hep B and Hep C, can vaccinate for Hep B prior to starting biologic in unvaccinated individuals
    - Can consider boosters in patients who have been vaccinated but are nonreactive
- Consider social determinants of health and document them - this can help support the

amount of time spent with each patient in clinic for accurate billing

- Does the patient have reliable electricity to store the medication?
- Do they have memory issues? Do they have a caretaker to assist them with social support?
- Does the patient have a fear of needles or is unable to safely dispose of needles?
- Is the patient able to accept deliveries?
- Does the patient have reliable transportation? Will they be able to attend their follow up appointments and required lab work?
- Does the patient have language or literacy barriers? Is English their first language?
  - 54% of adult Americans read at a 6<sup>th</sup> grade level!
- Access to health care- even if a patient has insurance, what kind of access will it provide them? Medicare can be tricky, and giving the patient a medication in an infusion center allows it to be billed differently and may cut overall costs to patients
- Other medical factors to consider:
  - For TNF- $\alpha$  inhibitors:
    - Consider a patients' travel history (may have increased susceptibility to deep fungal infections)
    - Be cautious with a family history of demyelinating disorders
      - ALS, Guillain Barre, MS
    - Although these agents are contraindicated in patients with stage 4 heart failure, they may provide some benefits in patients with atherosclerotic disease
  - For IL-17 inhibitors:
    - Black box warning for inflammatory bowel disease
      - Consideration: many patients starting an IL-17 inhibitor have previously been prescribed a TNF- $\alpha$  inhibitor that may have been "protecting" them from their IBD - disease onset with initiation of an IL-17 inhibitor may be due to loss

of this protective factor rather than causation by the IL-17 inhibitor

- If a patient is felt to be at high risk for IBD or has a first degree relative with IBD- consider alternate agents
- Consider comorbid conditions:
  - Janus Kinase (JAK) inhibitors are FDA approved for vitiligo, alopecia areata, atopic dermatitis - prescribing a JAK inhibitor in patients with one of these conditions and psoriasis or psoriatic arthritis may kill two birds with one stone
- Know the FDA approved indications and appropriate patient age range for each drug you are trying to prescribe
- Know the top side effects associated with the agent you are prescribing
  - All agents: increased risk for upper respiratory disorders
  - IL-23 and IL-17 inhibitors: 1-3% of patients end up with more tinea infections than at baseline
  - Injection site reactions
    - Ixekizumab (IL-17 inhibitor): higher risk for injection site reactions
    - To help prevent: bring the medication to room temperature prior to injection, ice the injection site beforehand
  - Brodalumab (IL-17 receptor inhibitor): potential higher risk of suicidal ideation
- Consider importance of rapid speed of onset
  - IL-17 inhibitors have the most rapid speed of onset
- Be aware of potential for loss of efficacy over time
  - Secukinumab (IL-17 inhibitor) has a rapid onset but loses efficacy over time

Tips for Obtaining Coverage for Patients Once Biologic Medication is Prescribed

- A great desk nurse to help with prior authorizations is key!
- Make sure you are documenting somewhere how far along you are in the process with

obtaining coverage for each patient so that someone else can continue the process if need be

- Foster relationships with specialty pharmacies
- Having a patient fill out paperwork/patient assistance forms for multiple agents can allow for a “back up” option if the first-choice medication isn’t covered
- Make sure you are documenting a BSA or PASI, tried and failed medications, duration of therapy, results of TB tests, special site involvement, presence of psoriatic arthritis for each patient
- Review the patient’s insurance before you see them so that you can have an idea of what agents may or may not be feasible
  - Some insurance companies may strongly prefer to cover a certain agent
- Medicare coverage for biologics has improved greatly over the last five years
  - Some Medicare patients may be covered for biologic agents that can be administered in an infusion center, can work with oncology to get the medication administered

### Summary:

- Deciding to prescribe a biologic: perform a good physical exam, look at BSA and PASI, rule out contraindications, ask about psoriatic arthritis, check for special sites, choose agent
- Tips for obtaining coverage: document what patient has tried and failed, document duration of past therapies, obtain labs (Quant gold for TB, hepatitis panel, CBC, CMP, HIV +/-), complete paperwork while patient is in office, review patient’s insurance
- Important paperwork:
  - Fill out prior authorization form and send to the pharmacy
  - Fill out the patient assistance form and send to the pharmaceutical company
  - Consider completing the necessary paperwork for two different drugs while the patient is in office

### Final Considerations:

- The number one reason patients don’t get biologics: communication issues such as not answering the phone for the pharmacy or insurance company
  - Warn patients that they will be getting phone calls from unknown numbers regarding their prescription, and this is a necessary part of obtaining coverage
- Biologics are medications with a great safety profile compared to other oral agents and strong efficacy, don’t get discouraged with regards to prescribing these agents
  - The key is dedicating a staff member to assisting with obtaining coverage for these agents