**Question:** It seems an added concern would be that many of our patients are Type II or Type 1 diabetics, where the bladder would be serving as a giant incubator with lots of food in the form of glucose for the  bacteria. Are there certain antibiotics that are better for the diabetic population that has less side effects?

**Summary:**

* The presence of diabetes, particularly uncontrolled, is associated with more frequent UTIs, and UTIs caused by a greater variety of pathogens including fungi and drug-resistant bacteria.1
* Principles of treatment are not different than the general population including first and second line therapies.
* Treatment of asymptomatic bacteriuria in DM patients does NOT prevent future UTIs nor does it prevent complications associated with urinary tract infections.2

**Table 1:** First and second-line antimicrobial therapies with DM-specific notes related to their safety and efficacy profile

**Second Line**

**First Line**

|  |  |  |
| --- | --- | --- |
| **Antibiotic** | **PROS** | **CONS** |
| Nitrofurantoin | Urine-specific | Ineffective in patients with renal impairment |
| Sulfamethoxazole/TMP | Good concentration in urine | Renally toxic – ensure good hydration |
| Fosfomycin | Broad spectrum, single-dose without need for adjustment3 | Price Increased dosing leads to GI ADRs4 |
| Fluoroquinolones | Highly effective | Increase risk of dysglycemia  -hyper or hypoglycemia risk greater with  levofloxacin 0.19 and 0.18  ciprofloxacin 0.10 and 0.12  cases of hypo and hyperglycemia per 1000 patients5 |
| Amoxicillin | Treats enterococcus  (even VRE) | High rates of *E. coli* resistance, avoid empiric use |
| Amoxicillin/clavulanate |  | High rates of *E. coli* resistance, avoid empiric use |
| Cefazolin | Well-tolerated | Frequency of dosing, consider cefadroxil (BID)  May be less effective vs. FQ or Sulfa |

**References:**

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