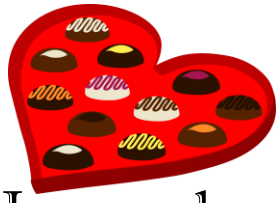
The GeriJournal



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Antibiotic Stewardship

An expert multidisciplinary panel in the Kingston area has developed a series of guidelines aimed at improving infection treatment in the LTC environment. Five areas: UTI, pneumonia, skin and soft tissue infections, *C. Difficile* and scabies are covered in the document. I will discuss some of the key points of the UTI guideline in this issue.

Confirmed UTIs are the most common infections in LTC. Still, urinary markers suggestive of UTI often trigger antibiotic treatment when in fact no UTI is present. The guideline defines a UTI as "A significant bacterial count (10^5 cfu/ml or 10^8 cfu/L) confirmed by urine C&S from a midstream or in and out catheterized urine sample **accompanied by symptoms of a UTI.**" Such symptoms include; acute dysuria (painful or difficult urination), fever >37.9° C, new or increased urinary frequency, urgency or incontinence, flank pain or hematuria (blood in the urine).

Catheterized residents usually represent a greater diagnostic challenge. New onset delirium, purulent discharge and swelling of the testes, epididymis or prostate (in men) are all signs of potential infection. Fever is often not present in the elderly, due to internal factors or medications that mask the febrile response.

Non-specific symptoms often lead to incorrect UTI diagnosis. Urine that is cloudy or has an unpleasant smell should not be cultured. Poor diet or hygiene may be to blame. While new onset falls, mental status or behavioural changes can be signals of infection, they are not specific for UTIs and other sites should be considered.

Dipstick and lab results should also be scrutinized. Leukocyte esterase, a white blood cell byproduct is found in 90% of urine samples of residents with asymptomatic bacteriuria. Nitrite testing frequently yields false positive UTI results if testing strips are exposed to air for too long or vaginal contaminants affect the sample. C&S reports showing three or more organisms indicate sample contamination and are of little value.

Treatment approach is determined by: severity of infection (complicated vs. uncomplicated), identified organism, antibiotic use in prior three months and patient factors. All UTIs in elderly males are considered to be complicated. UTIs in women with diabetes, indwelling catheters and vaginal or uterine abnormalities, such as prolapse, etc. are also in the complicated category.

First line antibiotics include Bactrim®, trimethoprim (for those allergic to sulpha) Macrobid® and amoxicillin. Bactrim® is often not a good choice for diabetics, because it does not eradicate *Group B Strep*, organisms commonly found in that patient group. Macrobid® cannot be concentrated in the urine in those with even modest renal failure. Resistance of *E. Coli*, the most common cause of UTI in the elderly, to amoxicillin is common. Quinolones, such as Cipro® and Levaquin® are also first-line agents in complicated infections, due to their activity against troublesome organisms such as *P. Aeruginosa.*

Rock and Roll

Rock and roll was good in the 60s and should still be alive and well in all of our retirement and LTC facilities today. Pens with cloudy insulins (e.g. Mix, 30/70 and NPH products) must be rolled ten times between the palms, then rocked ten times (up and down motion of forearm from the elbow) before injection. A visual check should be done to ensure the insulin is suspended evenly before administration.

GeriatRx PHARMACY

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