Drug Class Review Monograph – GPI Class 09 – Antimycobacterial Agents

Review Time Frame: 05/2016 – 04/2017
Previous Class Review: 08/2016

Background:
Antimycobacterial agents are used to treat diseases such as tuberculosis. There are several drugs with various mechanisms of actions.

- Ethambutol: inhibits arabinosyl transferase, resulting in impaired mycobacterial cell wall synthesis
- Rifamycins (rifampin, rifabutin, rifapentine): inhibit DNA-dependent RNA polymerase, thereby inhibiting the binding of the enzyme to DNA and suppressing RNA synthesis
- Pyrazinamide: mechanism of action is unknown
- Isoniazid and ethionamide: inhibit mycolic acid synthesis, which interferes with cell wall synthesis
- Bedaquiline: binds to adenosine 5’-triphosphate (ATP) synthase, preventing production of ATP via ATP synthase

New treatment guideline recommendations:
- None identified

Newly approved drugs:
- None identified

Newly approved formulations:
- None identified

Newly approved generics:
- None identified

Discontinued drugs:
- None identified

FDA Safety Alerts/black box warnings:
- None identified

Pipeline alerts:
Agents pending FDA approval include:
- None identified

References: