Multi-drug-resistant Tuberculosis-(MDR-TB)

Background: Tuberculosis (TB) is an infectious bacterial disease caused by Mycobacterium tuberculosis, and commonly affects the lungs. A new multi-drug resistant tuberculosis (MDR-TB) is spreading and is resistant to all anti-TB drugs. MDR-TB does not respond to isoniazid and rifampicin, the two most powerful anti-tuberculosis drugs.

How is TB spread? TB is transmitted from person to person via droplets from the throat and lungs of people with the active respiratory disease and by coughing, sneezing, and talking.

What are the signs and symptoms of TB? Fever, night sweats, weight loss, coughing up blood-tinged sputum, chest pains, and weakness

Who is at risk? Individuals who are relatively poor, poor sanitation, malnutrition, HIV/AIDS, smokers, diabetics, immunosuppressed, and those who live in third-world countries

What causes MDR-TB? The primary cause of multidrug resistance is mismanagement of TB treatment. Most people with tuberculosis are cured by a strictly followed, six-month drug regimen that is provided to patients with support and supervision. Inappropriate or incorrect use of antimicrobial drugs or use of ineffective formulations of drugs can cause drug resistance

Nursing implications: The primary cause of MDR-TB is inappropriate treatment, inappropriate or incorrect use of anti-TB drugs, or use of poor quality medicines, can all cause drug resistance. MDR-TB is treatable and curable by using second-line drugs. However second-line treatment options are limited and recommended medicines are not always available

Recommendations are to pursue high-quality directly observed therapy (DOT) expansion and enhancement to:

- ensure early case detection, and diagnosis
- provide standardized treatment with supervision and patient support
- ensure effective drug supply and management
- monitor and evaluate performance and impact
- address TB-HIV, MDR-TB, and the needs of poor and vulnerable populations
- contribute to health system strengthening based on primary health care
- engage all care providers

For additional information go to: www.CDC.gov