

## CLINICAL USE OF RIFABUTIN, A RIFAMYCIN-CLASS ANTIBIOTIC, FOR THE TREATMENT OF TUBERCULOSIS

(A supplement to the 2008 revision of “Standards for tuberculosis care”)

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The Treatment Committee of the Japanese Society for Tuberculosis

The Treatment Committee of the Japanese Society for Tuberculosis published statements on the “Standards for tuberculosis care” in April 2008. Therein we referred to rifampicin as follows; “Use of rifampicin requires attention because of the interactions with a number of other drugs. Particularly for HIV-infected patients who need antiviral drugs, the replacement of rifampicin by rifabutin should be considered”. Rifabutin, belonging to rifamycin-class antibiotics like rifampicin, causes less significant drug-drug interactions than rifampicin, and can be used in combination with antiviral drugs mentioned above. In July 2008, rifabutin was approved as antituberculous drug, and is expected to be added to the drug price listing in the near future\*. Therefore, to the published opinions, we add new statements concerning the use of rifabutin for the treatment of tuberculosis.

\*Added to the list in September 2008.

### [Recommended cases for use of rifabutin]

For the treatment of tuberculosis, rifampicin is used in patients who are infected with rifampicin-sensitive strains and have no trouble in using rifampicin; however, the substitution of rifabutin for rifampicin is recommended in the following cases;

- (1) In cases where the use of rifampicin is limited due to drug-drug interactions, especially when anti-HIV drugs such as protease inhibitors and non-nucleoside reverse transcriptase inhibitors are administered.
- (2) In cases where rifampicin cannot be used because of adverse effects.

### [Dosage and administration of rifabutin]

Rifabutin, 5 mg/kg in body weight/day, maximum 300 mg/day, once daily.

The dosage of rifabutin can be increased up to the maximum daily dose of 450 mg in cases where decreased rifabutin serum levels are expected due to anti-HIV drugs such as efavirenz, and in other cases if necessary.

In non-HIV-infected patients, rifabutin can be used for intermittent treatment with a regimen of twice or three times a week, with the same dosage as daily administration.

### [Important points for use of rifabutin]

- (1) Rifabutin causes drug interactions due to induction of hepatic enzyme though less significantly than rifampicin.
- (2) Rifabutin and rifampicin have the common adverse effects such as hepatic dysfunction, and discolored body fluid; therefore, close observation is necessary when rifabutin substitutes for rifampicin because of adverse effects.
- (3) Rifampicin-resistant strains of *Mycobacterium tuberculosis* are also resistant to rifabutin in most cases. Concerning the use of rifabutin in multidrug-resistant strains, we need more cases to assess involving drug sensitivity assay methods.

### [References]

- 1) The Treatment Committee of the Japanese Society for Tuberculosis: The 2008 revision of “Standards of medical care for tuberculosis”. Kekkaku. 2008 ; 83 : 529–535.
- 2) Davies G, Cerri S, Richeldi L: Rifabutin for treating pulmonary tuberculosis. Cochrane Database Syst Rev. 2007 ; 17 : (4) • CD005159.

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