For prophylaxis against meningococcal **meningitis** the AAP recommends infants less then 1 month old are given 5 mg/kg, while infants and children aged 1 month or more are given 10 mg/kg (to a maximum of 600 mg), both twice daily by mouth for 2 days. The *BNFC* recommends doses of 5 mg/kg for neonates and infants up to 12 months of age and 10 mg/kg for children between 1 and 12 years of age, each twice daily by mouth for 2 days.

For prophylaxis against meningitis due to *Haemophilus influenzae* the AAP recommends infants less then 1 month old are given 10 mg/kg once daily by mouth for 4 days, while the *BNFC* suggests that this dose should be given to infants aged 1 to 3 months. For older infants and children both the AAP and the *BNFC* recommend a dose of 20 mg/kg (to a maximum of 600 mg) once daily by mouth for 4 days.

Administration in hepatic impairment. Reduced doses of rifampicin are recommended for patients with hepatic impairment and a maximum of 8 mg/kg daily has been suggested. See also Precautions, above.

Ehrlichiosis. Beneficial responses to rifampicin have been reported[1] in 2 pregnant women with human granulocytic anaplasmosis (see Ehrlichiosis, p.168), in whom the usual treatment with a tetracycline was contra-indicated.

1. Buitrago MI, *et al*. Human granulocytic ehrlichiosis during pregnancy treated successfully with rifampin. *Clin Infect Dis* 1998; **27:** 213–15.

Meningitis prophylaxis. ***HAEMOPHILUS INFLUENZAE MENINGITIS PROPHYLAXIS.*** Meningeal infection with *Haemophilus influenzae* type b (Hib) in children is associated with substantial morbidity, but the incidence has decreased since the introduction of immunisation with *H. influenzae* type b vaccine. Although a worldwide problem, the disease (p.178) and its prophylaxis has been studied mainly in the USA, where it was shown that children under 4 years of age formed the highest risk group for primary infection while children under 2 years of age formed the highest risk group for secondary infection.[1] The goal of prophylaxis in close contacts is to eliminate carriage of the organism to prevent spread to young children. Risk of infection to young children with recent household contact to the primary case of infection with *H. influenzae* type b is increased 600- to 800-fold,[1,2] but only increased 20-fold[3] from day-care or school contact. The risk may be higher when more than 1 index patient is identified.

Rifampicin in doses of 20 mg/kg once daily for 4 days (maximum dose 600 mg) has been shown to eradicate Hib nasopharyngeal carriage in at least 95% of contacts of the primary case.[4] There is some evidence from a study involving 68 families of patients with Hib infection that rifampicin 20 mg/kg daily for 2 days may be as effective as a 4-day course in eradicating Hib pharyngeal colonisation.[5] Rifampicin prophylaxis appears to be successful in preventing infection in household contacts, but benefit in school settings where there has been a single index case has not been established.[3]

Recommendations have been made for rifampicin prophylaxis.[6,7] The American Academy of Pediatrics (AAP) recommends[6] that all household contacts be given rifampicin prophylaxis where there is at least 1 contact person who is younger than 4 years of age who is not or incompletely immunised against Hib, where there is an unimmunised child younger than 12 months of age, or where there is an immunocompromised child (regardless of vaccine status), in the household. Similar recommendations have been made in the UK.[7] The AAP[6] also recommends rifampicin prophylaxis when 2 or more cases of Hib disease have occurred within 60 days in a day-care or school. In the UK,[7] prophylaxis has been recommended for all room contacts when 2 or more cases of disease have occurred within 120 days. Rifampicin prophylaxis is not recommended for pregnant women.[6]

For recommended *doses* see Uses and Administration and Administration in Children, above.

Rifampicin should also be given to the primary case since treatment of the infection does not eradicate nasopharyngeal carriage.[2,6]

1. Casto DT, Edwards DL. Preventing Haemophilus influenzae type b disease. *Clin Pharm* 1985; **4:** 637–48.
2. Cartwright KAV, *et al*. Chemoprophylaxis for Haemophilus influenzae type b: rifampicin should be given to close contacts. *BMJ* 1991; **302:** 546–7.
3. ASHP Commission on Therapeutics. ASHP therapeutic guidelines on nonsurgical antimicrobial prophylaxis. *Clin Pharm* 1990; **9:** 423–45.
4. Band JD, *et al*. Prevention of Hemophilus influenzae type b disease. *JAMA* 1984; **251:** 2381–6.
5. Green M, *et al*. Duration of rifampin chemoprophylaxis for contacts of patients infected with Haemophilus influenzae type B. *Antimicrob Agents Chemother* 1992; **36:** 545–7.
6. Pickering L, *et al*. eds. *Red Book: 2006 Report of the Committee on Infectious Diseases*. 27th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2006.
7. Department of Health. *Immunisation Against Infectious Disease* 2006: "The Green Book" Available at: http://www.dh.gov.uk/en/Policyandguidance/Healthandsocialcaretopics/Greenbook/DH_4097254 (accessed 05/10/07)

MENINGOCOCCAL MENINGITIS PROPHYLAXIS. *Neisseria meningitidis* is an important cause of bacterial meningitis (p.178); all age groups are at risk during epidemics but children are usually at highest risk during endemic outbreaks. Vaccines are available for meningococci groups A, C, Y, and W135 but not usually for group B, therefore antimicrobial prophylaxis remains important in preventing the spread of the disease. The aim of prophylaxis is to eliminate nasopharyngeal carriage of the organism. Sulfadiazine and minocycline are no longer used because of resistance and adverse effects. The current antibacterial of choice is rifampicin which should be given for 2 days (for doses see Uses and Administration and Administration in Children, above). Alternatives include a single oral dose of ciprofloxacin, ofloxacin, or azithromycin, or a single intramuscular dose of ceftriaxone.[1,2] Antibacterial prophylaxis should be given as soon as possible to close contacts (ideally within 24 hours of diagnosis of the index case). It is also recommended for child care or nursery school contacts in the USA,[2] but is not usually advised for this group in the UK after a single case.[1] The index patient should also receive rifampicin for 2 days before hospital discharge since treatment with penicillin does not eliminate nasopharyngeal carriage.

1. PHLS, Public Health Medicine Environmental Group, Scottish Centre for Infection and Environmental Health. Guidelines for public health management of meningococcal disease in the UK. *Commun Dis Public Health* 2002; **5:** 187–204. Also available at: http://www.hpa.org.uk/cdph/issues/CDPHvol5/no3/Meningococcal_Guidelines.pdf (accessed 05/10/07)
2. CDC. Recommendations of the Advisory Committee on Immunization Practices (ACIP): prevention and control of meningococcal disease. *MMWR* 2005; **54** (RR-7): 1–21. Also available at: http://www.cdc.gov/mmwr/PDF/rr/rr5407.pdf (accessed 05/10/07)

Naegleria infections. For mention of the use of rifampicin in primary amoebic meningoencephalitis, see p.822.

Preparations

BP 2008: Rifampicin Capsules; Rifampicin Oral Suspension;
USP 31: Rifampin and Isoniazid Capsules; Rifampin Capsules; Rifampin for Injection; Rifampin Oral Suspension; Rifampin, Isoniazid, and Pyrazinamide Tablets; Rifampin, Isoniazid, Pyrazinamide, and Ethambutol Hydrochloride Tablets.

Proprietary Preparations (details are given in Part 3)
Arg.: Moxina; Pharmaceutix†; Rifadecina†; Rifadin; ***Austral.:*** Rifadin; Rimycin; ***Austria:*** Eremfat; Rifoldin; Rimactan; ***Belg.:*** Rifadine; ***Braz.:*** Monicil; Rifaldin; Rifamp; ***Canad.:*** Rifadin; Rofact; ***Chile:*** Rifaldin; ***Cz.:*** Arficin; Benemicin; Eremfat; Rifamor†; Tubocin†; ***Denm.:*** Rimactan; ***Fin.:*** Rimapen; ***Fr.:*** Rifadine; Rimactan; ***Ger.:*** Eremfat; Rifa; ***Gr.:*** Rifadin; Rifaldin; ***Hong Kong:*** Ricin; Rifadin; Rifasynt; Rimactane; ***Hung.:*** Rifamed; ***India:*** R-Cin; Rifacilin; Rifacom E-Z; Rifamycin; Rimactane; Siticox; ***Indon.:*** Corifam; Famri; Lanarif; Medirif; Merimac; Prolung; Ramicin; RIF; Rifabiotic; Rifacin; Rifamtibi; Rimactane; ***Irl.:*** Rifadin; Rimactane; ***Israel:*** Rimactan; ***Ital.:*** Rifadin; Rifapiam†; ***Malaysia:*** Ramfin†; Rifasynt; Rimactane; ***Mex.:*** Eurifam; Finamicina; Pestarin; Rifadin; Rimactan; Turifam; ***Neth.:*** Rifadin; Rimactan†; ***Norw.:*** Rimactan; ***NZ:*** Rifadin; ***Philipp.:*** Crisarfam; Fampisec; Framacin; Medifam; Natricin; Odifam; Refam; Rexilan; Ricyn; Rifadin; Rifamax; Rimactane; Rimaped; Riprocin; ***Port.:*** Rifadin; Rifex; Rimactan; ***Rus.:*** Benemicin (Бенемицин); ***S.Afr.:*** Rifadin†; Rimactane; ***Singapore:*** Rimactane†; ***Spain:*** Rifagen†; Rifaldin; Rimactan; ***Swed.:*** Rifadin; Rimactan; ***Switz.:*** Rimactan; ***Thai.:*** Manorifcin; Myrin-P; Myrin†; Ramfin†; Rampicin†; Ricin; Rifadin; Rifagen; Rifam; Rifam-P†; Rifamcin; Rifasynt†; Rimactane; Rimecin; ***Turk.:*** Rifadin; Rifcap; Rifex; ***UK:*** Rifadin; Rimactane; ***USA:*** Rifadin; Rimactane; ***Venez.:*** Fampiz†; Rifadin; Rimactan.

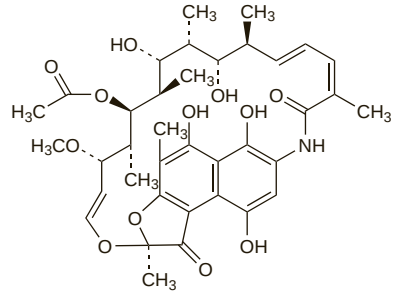
Multi-ingredient: ***Arg.:*** Bacifim; Rifaprim; Rifinah; Risoniac†; Ritroprim†; ***Austria:*** Rifater; Rifoldin INH; ***Braz.:*** Isoniaton; ***Canad.:*** Rifater; ***Denm.:*** Rimactazid; Rimstar; ***Fin.:*** Rimactazid; Rimstar; ***Fr.:*** Rifater; Rifinah; ***Ger.:*** Iso-Eremfat; Rifater; Rifinah; tebesium Duo; tebesium Trio; ***Gr.:*** Oboliz; Rifater; Rifinah; Rimactazid; ***Hong Kong:*** Rifater; Rifinah; ***Hung.:*** Rifazid; ***India:*** Akt-3; Akt-4; Arzide; Bicox-E†; Coxina-3; Coxina-4; Coxinex; Cx-3; Cx-4; Cx-5; Gocox Compound; Gocox-3; Gocox-4†; Ipcacin Kid; Isorifam; R-Cinex; R-Cinex Z; RHZ; RHZ-Plus; Rifa; Rifa E; Rifacomb Plus†; Rifacomb†; Rimactazid + Z; Rimpazid; Siticox-INH; Tibirim INH; Tricox; Wokex-2; Wokex-3; Wokex-4; Xeed-2; Xeed-3E; Xeed-4; ***Indon.:*** Ramicin-ISO; Rimactazid; Rimcure; Rimstar; ***Irl.:*** Rifater; Rifinah; Rimactazid; ***Ital.:*** Rifater; Rifinah; ***Malaysia:*** Rimactazid; Rimcure; ***Mex.:*** Arpisen; Finater; Finateramida; Isonid†; Rifaprim; Rifater; Rifinah; ***Neth.:*** Rifinah; ***NZ:*** Rifinah; ***Philipp.:*** 4D; Bifix; CombiKids; CombiPack; Continukit; Continukit Plus; Continupack; Econokit; Econokit-MDR; Econopack; Fixcom 3; Fixcom 4; Kidz Kit 2; Kidz Kit 3; Myrin; Myrin-P; Quadtab; Refam Duo; Refam Pedia Kit; Rifater; Rifinah; Rifzin; Rimactazid; Rimcure; Rimstar; SVM-Polypac-A; Tres; Triofix; Tritab; Viper; ***Pol.:*** Rifamazid; ***Port.:*** Rifater; Rifinah; ***Rus.:*** Isocomb (Изокомб); Repin B (Репин В); Rifacomb (Рифакомб); Rifacomb Plus (Рифакомб Плюс); Rimactazid (Римактазид); Rimecure 3-FDC (Римкур 3-ФДС); Rimstar 4-FDC (Римстар 4-ФДС); ***S.Afr.:*** Myrin Plus†; Myrin†; Rifafour; Rifater; Rifinah; Rimactazid; Rimcure; Rimstar; ***Singapore:*** Rimactazid; ***Spain:*** Rifater; Rifazida†; Rifinah; Rimactazid; Rimcure; Rimstar; Tisobrif; ***Swed.:*** Rimactazid; Rimcure; Rimstar; ***Switz.:*** Rifater; Rifinah; ***Thai.:*** Rifafour; Rifampyzid; Rifater; Rifinah; Rimactazid; Rimcure 3-FDC; Rimstar; ***UK:*** Rifater; Rifinah; Rimactazid†; ***USA:*** IsonaRif; Rifamate; Rifater; ***Venez.:*** Rimactazid; Rimcure.

Rifamycin Sodium *(BANM, rINNM)*

M-14 (rifamycin); Natrii Rifamycinum; Rifamicina sódica; Rifamicin-nátrium; Rifamicino natrio druska; Rifamycin sodná sůl; Rifamycin SV Sodium; Rifamycine sodique; Rifamycinnatrium; Rifamycinum natricum; Rifamysiininatrium; Ryfamycinum Natricum; Ryfamycyna sodowa. Sodium (12*Z*,14*E*,24*E*)-(2*S*,16*S*,17*S*,18*R*,19*R*,-20*R*,21*S*,22*R*,23*S*)-21-acetoxy-1,2-dihydro-6,9,17,19-tetrahydroxy-23-methoxy-2,4,12,16,18,20,22-heptamethyl-1,11-dioxo-2,7-(epoxypentadeca-1,11,13-trienimino)-naphtho-[2,1-*b*]furan-5-olate.

Натрий Рифамицин

$C_{37}H_{46}NNaO_{12}$ = 719.8.
CAS — 6998-60-3 (rifamycin); 14897-39-3 (rifamycin sodium); 15105-92-7 (rifamycin sodium).
ATC — J04AB03; S01AA16; S02AA12.
ATC Vet — QJ04AB03; QS01AA16; QS02AA12.



(rifamycin SV)

Pharmacopoeias. In *Eur.* (see p.vii).
Ph. Eur. 6.2 (Rifamycin Sodium). The monosodium salt of rifamycin SV, a substance obtained by chemical transformation of rifamycin B which is produced during growth of certain strains of *Amycolatopsis mediterranei*. Rifamycin SV may also be obtained directly from certain mutants of *A. mediterranei*. The potency is not less than 900 units/mg calculated with reference to the anhydrous substance. A red, fine or slightly granular powder. Soluble in water; freely soluble in dehydrated alcohol. A 5% solution in water has a pH of 6.5 to 8.0. Store in airtight containers at a temperature of 2° to 8°. Protect from light.

Adverse Effects and Precautions
Some gastrointestinal adverse effects have occurred after injections of rifamycin. High doses may produce alterations in liver function. Hypersensitivity reactions including rashes, pruritus, and anaphylaxis have occurred rarely, but prolonged use increases the risk of sensitisation. A reddish coloration of the urine and other body fluids has been reported. Rifamycin should be used with care in patients with hepatic dysfunction.

Antimicrobial Action
Rifamycin has similar antimicrobial actions to those of rifampicin (p.327).

Pharmacokinetics
Rifamycin is not effectively absorbed from the gastrointestinal tract. Plasma concentrations of 2 micrograms/mL have been achieved 2 hours after a dose of 250 mg by intramuscular injection; concentrations of about 11 micrograms/mL have been achieved 2 hours after an intravenous dose of 500 mg. Rifamycin is about 80% bound to plasma proteins and has a plasma half-life of about 1 hour.

Rifamycin is excreted mainly in the bile and only small amounts appear in the urine.

Uses and Administration
Rifamycin is a rifamycin antibacterial that has been used in the treatment of infections caused by susceptible organisms including Gram-positive organisms such as staphylococci. It has been given as the sodium salt by intramuscular injection and by slow intravenous infusion and is also given by local instillation and topical application.

Preparations
Proprietary Preparations (details are given in Part 3)
Arg.: Plusderm ATB†; Rifocina; ***Austria:*** Rifocin; ***Belg.:*** Rifocine; ***Braz.:*** Rifan; Rifocina; ***Fr.:*** Otofa; ***Ital.:*** Rifocin; ***Mex.:*** Rifocyna; ***Port.:*** Rifocina; ***Rus.:*** Otofa (Отофа); ***Switz.:*** Otofa; ***Turk.:*** Rif; Rifocin; ***Venez.:*** Rifocina.

Multi-ingredient: ***Braz.:*** Rifocort.

Rifapentine *(BAN, USAN, rINN)*

DL-473; DL-473-IT; L-11473; MDL-473; Rifapentina; Rifapentinum. 3-[*N*-(4-Cyclopentyl-1-piperazinyl)formimidoyl]rifamycin.

Рифапентин

$C_{47}H_{64}N_4O_{12}$ = 877.0.
CAS — 61379-65-5.
ATC — J04AB05.
ATC Vet — QJ04AB05.