SCHEDULING STATUS:
S4

PROPRIETARY NAME (and dosage form):
DOXYCYCLINE BIOTECH 100 mg Tablets

COMPOSITION:
Each Tablet contains:
Doxycycline hyclate equivalent to doxycycline 100 mg.
Excipients: Microcrystalline cellulose, croscarmellose sodium, colloidal silicone dioxide, magnesium stearate, TC-530027 orange (Hypromellose, titanium dioxide, polyethylene glycol/ macrogol, sunset yellow FCF aluminium lake, carnauba wax).
Sugar free

PHARMACOLOGICAL CLASSIFICATION:
A 20.1.1 Antimicrobial (chemotherapeutic) agents. Broad and medium spectrum antibiotic.

PHARMACOLOGICAL ACTION:
Doxycyclines are bacteriostatic antibiotics which inhibit bacterial growth by binding to the 30S ribosomal sub unit with consequent misreading of information for protein synthesis. They are effective *in vitro* against the following organisms (*in vitro* activity does not necessarily imply *in vivo* efficacy):
Vibrio cholera, Ureaplasma urealyticum, Mycoplasma pneumonia, Chlamydia trachomatis, Chlamydia psittaci, Borrelia recurrentis, Calymmatobacterium granulomatis, Borrelia burgdorferi, penicillin-sensitive *Neisseria gonorrhoeae* and Rickettsiae.
Doxycyclines are also effective against the following organisms *in vitro*:
Haemophilus ducreyi, Actinomyces isrealii, Francisella tularensis, Treponema pertenue.

RESISTANT PATHOGENS:
Many of the following strains are resistant:
Staphylococci
Enterococci
Proteus vulgaris
Fungi and yeasts (except Actinomyces)
Pseudomonas aeroginosa (all strains)
Escherichia coli
Shigella
Streptococcus

PHARMACOKINETICS:
Doxycycline is readily and almost completely absorbed from the gastro-intestinal tract. Peak plasma concentrations occur about 2 hours after ingestion. Doxycycline is readily absorbed into body fluids and tissues.

INDICATIONS:
Infections caused by susceptible strains of pathogens:
Upper and lower respiratory tract infections
Sinusitis, pharyngitis, *Mycoplasma pneumonia*, psittacosis and chronic bronchitis.
Genito-urinary tract infections
Non-specific urethritis (only if the strain is sensitive), *Lymphogranuloma venereum*, chancroid and *Granuloma inguinale*, *Gonococcal salpingitis*, epididymitis, acute *Epididymo-orchitus*, endocervical infections, syphilis and gonorrhoea (in cases of penicillin allergy);
Soft tissue
Acne
Opthalmic
Trachoma and inclusion conjunctivitis
Intestinal
Cholera, Whipple's disease and tropical sprue.
Miscellaneous
Rickettsial infections, brucellosis, tularaemia, actinomycosis, Lyme disease, yaws, relapsing fever, leptospirosis during the early infective phase.

CONTRA-INDICATIONS:
In patients with impaired renal function.
Allergy to any tetracycline.
DOXYCYCLINE BIOTECH 100 should not be given in pregnancy. DOXYCYCLINE BIOTECH 100 crosses the placenta and is deposited in foetal bones and teeth.
Pregnant women are particularly susceptible to severe Doxycycline-induced liver damage.
Should not be given to lactating women or to children younger than 12 years of age as permanent discolouration of the child's teeth may occur.
Should not be given to patients with systemic lupus erythematosus.

INTERACTIONS:
Absorption of DOXYCYCLINE BIOTECH 100 is diminished by milk, alkalis, aluminium hydroxide and other di and tri-valent cations such as calcium, iron and magnesium if they are given concomitantly.
Doses of anticoagulant may need to be reduced if given concomitantly.
Penicillin should not be given concomitantly with DOXYCYCLINE BIOTECH 100 as antagonism in action may occur.
DOXYCYCLINE BIOTECH 100 may diminish the effectiveness of oral contraceptives.
Methoxyflurane: serious nephrotoxicity may follow concomitant use.
PREGNANCY AND LACTATION:
DOXYCYCLINE BIOTECH 100 should not be given in pregnancy. DOXYCYCLINE BIOTECH 100 crosses the placenta and is deposited in foetal bones and teeth.
Pregnant women are particularly susceptible to severe Doxycycline-induced liver damage.
Should not be given to lactating women as permanent discolouration of the child's teeth may occur.

DOSAGE AND DIRECTIONS FOR USE:
Should be taken either one hour before meals or two hours after meals.
DOXYCYCLINE BIOTECH 100 should be taken with adequate liquid and with the patient in the upright position, to avoid lodging of capsules in the distal oesophagus as this may result in local corrosive irritation and ulceration.
The usual dose is 100 mg twice daily on the first day, then 100 mg daily.
For acne the adult dosage is 50 mg twice daily.

WARNINGS AND SPECIAL PRECAUTIONS:
Use with care in patients with liver function impairment.
Frail or elderly patients are susceptible to the hepatotoxic and anti-anabolic effects of DOXYCYCLINE BIOTECH 100.
Do not use concomitantly with hepatotoxic medicines.
Symptoms of Myasthenia gravis may be aggravated.
Raised intracranial pressure may occur particularly in infants and especially if Vitamin A or other retinoids are given concomitantly.
Always tell your healthcare professional if you are using any other medicine.
DOXYCYCLINE BIOTECH 100 is not indicated for treating commonly occurring infection in children under 12 years of age.

SIDE EFFECTS:
Gastro-intestinal
Nausea, vomiting, diarrhoea, glossitis, dysphagia related to oesophagitis, enterocolitis.
Oesophageal ulceration has been reported when oral preparations were taken with insufficient fluid or in a recumbent position.
Secondary fungal overgrowth (Candida albicans)
Oral candidiasis, vulvovaginitis, pruritis ani.
Secondary bacterial overgrowth infections may occur
Resistant coliform organisms such as Proteus spp. may cause diarrhoea; Pseudomembranous colitis due to *Clostridium difficile* may occur; super-infection due to resistant staphylococci may cause fulminating enteritis.
Increased severity of uraemia and hepatotoxicity. In patients with renal disease given high doses.
Blood abnormalities
Haemolytic anaemia, eosinophilia, neutropenia, thrombocytopenia.
Vitamin deficiencies may occur.
Allergic (hypersensitivity) reactions
Urticaria, maculopapular and erythematous rashes, exfoliative dermatitis, exacerbation of systemic lupus erythematosus, pericarditis, Henoch-Schonlein purpura (*Anaphylactoid purpura*), Angioneurotic oedema, anaphylaxis.
Photosensitivity of the skin and nails, onycholysis and nail discolouration may occur.
A Jarisch-Herxheimer-like reaction has been reported in patients with relapsing fever treated with doxycycline.
The use of expired doxycyclines may lead to a Fanconi-type syndrome which is characterised by polyuria and polydipsia with nausea, vomiting, proteinuria, glucosuria, acidosis, aminoaciduria, hypophosphatemia and hypocalcaemia.
Not all side effects reported for this medicine are included in this leaflet. Should your general health worsen or if you experience any untoward effects while taking this medicine, please consult your doctor, pharmacist or other health care professional for advice.

KNOWN SYMPTOMS OF OVERDOSAGE AND PARTICULARS OF ITS TREATMENT:
See (SIDE-EFFECTS and WARNINGS AND SPECIAL PRECAUTIONS).
Treatment is symptomatic and supportive.

IDENTIFICATION:
Round, light orange, film-coated, biconvex tablets, engraved "Dox" over "100" on one side. Other side plain.

PRESENTATION
DOXYCYCLINE BIOTECH 100 mg tablets are packed in white, opaque, HDPE plastic bottles of 100 and 250 and patient ready packs or cartons of 14 and 28 tablets.

STORAGE INSTRUCTIONS:
Store at or below 25 °C.
Protect from light.
KEEP OUT OF REACH OF CHILDREN

REGISTRATION NUMBERS:
31/20.1.1/0425

NAME AND BUSINESS ADDRESS OF THE HOLDER OF THE CERTIFICATE OF REGISTRATION:
Biotech Laboratories (Pty) Ltd
Ground Floor, Block K West, Central Park,
400 16th Road, Randjespark, Midrand, 1685
South Africa

DATE OF PUBLICATION OF THE PACKAGE INSERT:
25 April 1997

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SKEDULERINGSTATUS:
S4

EIENDOMSNAAM EN DOSEERVORM:
DOXYCYCLINE BIOTECH 100 mg Tablets

SAMESTELLING:
Elke tablet bevat:
Doksisiklien hiklaat gelykstaande aan 100 mg doksisiklien.
Eksipiënte: Mikrokristallyne sellulose, croscarmellose natrium, kolloïdale silikondioksied, magnesium stearaat, TC-530027 oranje (Hypromellose, titaniumdioksied, poliëtileenglikol / makrogol, sunset geel FCF aluminium lake, carnauba was).
Suikervry

FARMAKOLOGIESE KLASSIFIKASIE:
A 20.1.1 Antimikrobiese (chemoterapeutiese) middels. Breë en medium spektrum antibiotika.

FARMAKOLOGIESE WERKING:
Doksisikliene is bakteriostatiese antibiotikums wat bakteriële groei inhibeer deur hul binding aan die 30S ribosomale sub-eenheid wat misinterpretasie van inligting vir proteïensintese tot gevolg het.
Hulle is effektief *in vitro* teen die volgende organismes (*in vitro* aktiwiteit beteken nie noodwendig dat dit *in vivo* doeltreffend is nie):
Vibrio cholera, Ureaplasma urealyticum, Mycoplasma pneumonia, Chlamydia trachomatis, Chlamydia psittaci, Borrelia recurrentis, Calymmatobacterium granulomatis, Borrelia burgdorferi, penisillien-sensitiewe Neisseria gonorrhoeae en Rickettsiae.
Doksisikliene is ook effektief vir die gebruik teen die volgende organismes in vitro:
Haemophilus ducreyi, Actinomyces isrealii, Francisella tularensis, Treponema pertenue.

WEERSTANDIGE PATOGENE:
Baie van die volgende stamme toon weerstandigheid:
Staphylococci
Enterococci
Proteus vulgaris
Swamme en giste (behalwe Actinomyces)
Pseudomonas aeroginosa (alle stamme)
Escherichia coli
Shigella
Streptococcus

FARMAKOKINETIKA:
Doksisiklien word geredelik en byna heeltemal geabsorbeer in die spysverteringskanaal. Piek plasma konsentrasies vind plaas omtrent 2 ure na inname van die medisyne. Doksisiklien word geredelik geabsorbeer deur liggaamsvloeistowwe en –weefsel.

INDIKASIES:
Infeksies wat veroorsaak word deur vatbare patogene stamme:
Boonste en onderste lugweginfeksies
Sinusitis, faringitis, *Mycoplasma pneumoniae*, psittakose and chroniese brongitis.
Genito-urienweginfeksies
Nie-spesifieke uretritis (slegs indien die stam sensitief is), *Lymphogranuloma venereum*, sjankroïed en *Granuloma inguinale, Gonococcal salpingitis*, epididimitis, akute *Epididymo-orchitus*, endoservikale infeksies, sifilis en Gonorree (in gevalle van penisillien allergie);
Sagteweefsel
Aknee
Oftalmies
Tragoom en insluitingskonjunktivitis
Dermkanaal
Cholera, Whipple se siekte en tropiese dermsproei.
Ander
Rickettsiale infeksies, brusellose, tularemie, aktinomikose, Lyme se siekte, frambesie, herhalende koors, leptospirose in die vroeë aansteeklike fase.

KONTRAINDIKASIES:
- In pasiënte met ingekorte nierfunksie.
- Allergie vir tetrasikliene.
- DOXYCYCLINE BIOTECH 100 moet nie tydens swangerskap gegee word nie. Doksisikliene deurkruis die plasenta en word gedeponeer in die fetus se bene en tande.
- Swanger vroue is veral vatbaar vir ernstige DOXYCYCLINE BIOTECH 100 geinduseerde lewerskade.
- Moet nie gegee word aan vrouens wat borsvoed nie, of aan kinders wat jonger as 12 jaar oud is nie, omdat permanente verkleuring van die kind se tande mag voorkom.
- Moet nie gegee word aan pasiënte met sistemiese lupus eritematose nie.

INTERAKSIES:
Absorpsie van DOXYCYCLINE BIOTECH 100 word verminder deur melk, alkalise middels, aluminiumhidroksied en ander di en tri-valentekatione soos kalsium, yster en magnesium indien hulle gelyktydig gegee word.
Dit mag nodig wees om dosisse van 'n antistolmiddel te verminder indien gelyktydig gegee word.
Die gebruik van penisillien tesame met DOXYCYCLINE BIOTECH 100 moet vermy word, omdat dit die werking daarvan kan teenwerk.
DOXYCYCLINE BIOTECH 100 kan die effektiwiteit van orale kontrasepsie verminder.
Metoksifluraan: gelyktydige gebruik kan nefrotoksisiteit tot gevolg hê.

SWANGERSKAP EN BORSVOEDING:
DOXYCYCLINE BIOTECH 100 moet nie tydens swangerskap gegee word nie. Doksisikliene deurkruis die plasenta en word gedeponeer in die fetus se skelet en tande.
Swanger vroue is veral vatbaar vir ernstige DOXYCYCLINE BIOTECH 100 geinduseerde lewerskade. Moet nie gegee word aan vrouens wat borsvoed nie, omdat permanente verkleuring van die kind se tande mag voorkom.

DOSIS EN GEBRUIKSAANWYSINGS:
Moet óf een uur voor etes of twee uur na etes geneem word.
DOXYCYCLINE BIOTECH 100 moet geneem word met genoeg vloeistof en met die pasiënt in die regop sittende posisie om te vermy dat die tablet in die distale esofagus vassteek wat kan lei tot lokale korroderende irritasie en ulserasie.
Die gewone dosis is 100 mg twee maal per dag op die eerste dag, daarna 100 mg daagliks.
Die volwasse dosis vir aknee is 50 mg twee maal per dag.

WAARSKUWINGS EN SPESIALE VOORSORGMAATREËLS:
Gebruik met sorg in pasiënte met ingekorte lewerfunksie.
Verswakte of bejaarde pasiënte kan vatbaar wees vir die hepatotoksiese en anti-anaboliese effekte van DOXYCYCLINE BIOTECH 100.
Moet nie saam met hepatotoksiese medisyne gebruik nie.
Simptome van miastenie gravis kan vererger word.
Verhoogde intrakraniale druk kan voorkom veral in babas en veral as Vitamien A of ander retinoïede gelyktydig gegee word.
Lig u gesondheidsorgdeskundige in indien u enige ander medisyne gebruik.
DOXYCYCLINE BIOTECH 100 word nie aangedui vir die behandeling van infeksies wat algemeen voorkom in kinders onder 12 jaar oud nie.

NEWE EFFEKTE EN SPESIALE VOORSORGMAATREËLS:
Spysverteringskanaal
Naarheid, braking, diarree, glossitis, disfagie verwant aan esofagitis, enterokolitis.
Esofageale ulserasie is al aangemeld wanneer orale preparate geneem word met onvoldoende vloeistowwe of in 'n leunende posisie is wanneer dit geneem word.
Sekondêre fungus oorgroeiing (Candida albicans)
Mondelinge kandidiase, vulvovaginitis, pruritis ani.
Sekondêre bakteriële oorgroeiingsinfeksies kan plaasvind
Weerstandige koliforme organismes soos Proteus spp. kan diarree veroorsak;
pseudomembraankolitis as gevolg van *Clostridium difficile* kan voorkom; super-infeksie as gevolg van weerstandige stafilokokke kan skielik en ernstige enteritis veroorsaak.
Verhoogde verergering van uremie en hepatotoksisiteit. In pasiënte met nierversaking vir wie hoë dosisse gegee word.
Bloed abnormaliteite
Hemolitiese anemie, eosinofilie, neutropenie, trombositopenie.
Vitamientekort kan voorkom.
Allergiese (hipersensitiwiteit) reaksies
Urtikarie, makulopapulêr- en eritemateuse uitslag, eksfoliatiewe dermatitis, verergering van sistemiese lupus eritematose, perikarditis,
Henoch-Schönlein se purpura (*Anafilatoïede purpura*), Angioneurotiese edeem, anafilakse.
Fotosensitiwiteit van die vel en naels, onigolise en verkleuring van die naels kan voorkom.
'n Soortgelyke reaksie soos die van Jarisch-Herxheimer se reaksie is aangemeld in pasiënte met terugkerende koors wat behandel is met DOXYCYCLINE BIOTECH 100.
Die gebruik van doksisikliene wat reeds verval het kan lei tot 'n Fanconi-tipe sindroom wat gekenmerk word deur poliurie en polidipsie met naarheid, braking, proteïenurie, glukosurie, asidose, aminosuururie, hipofosfatemie en hipokalsemie.

BEKENDE SIMPTOME VAN OORDOSERING EN DIE BESONDERHEDE VIR DIE BEHANDELING DAARVAN:
Verwys na (NEWE EFFEKTE en SPESIALE VOORSORGMAATREËLS).
Behandeling is simptomaties en ondersteunend.

IDENTIFIKASIE:
Ronde, ligte oranje, film-bedekte, bikonvekse tablette waarop "Dox" oor "100" gegraveer is op die een kant. Die ander kant van die tablet is skoon.

AANBIEDING:
DOXYCYCLINE BIOTECH 100 mg tablette is verpak in wit, ondeursigtige, plastiese HDPE bottels van 100 of 250 tablette en pasiënt verpakkings of kartonne met 14 en 28 tablette.

BERGINGSINSTRUKSIES:
Bewaar teen of benede 25 °C.
Beskerm teen lig.
HOU BUITE DIE BEREIK VAN KINDERS.

REGISTRASIENOMMER:
31/20.1.1/0425

NAAM EN BESIGHEIDSADRES VAN DIE HOUER VAN DIE REGISTRASIESERTIFIKAAT:
Biotech Laboratories (Edms) Bpk.
Grond Vloer, Blok K Wes, Central Park,
400 16de Weg, Midrand, 1685
Suid Afrika

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