

**ANNEX I**

**SUMMARY OF PRODUCT CHARACTERISTICS**

▼ This medicinal product is subject to additional monitoring. This will allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions. See section 4.8 for how to report adverse reactions.

## **1. NAME OF THE MEDICINAL PRODUCT**

Xydalba 500 mg powder for concentrate for solution for infusion

## **2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

Each vial contains dalbavancin hydrochloride equivalent to 500 mg dalbavancin.

After reconstitution each ml contains 20 mg dalbavancin.

The diluted solution for infusion must have a final concentration of 1 to 5 mg/ml dalbavancin (see section 6.6).

For the full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Powder for concentrate for solution for infusion (powder for concentrate).

White to off-white to pale yellow powder.

## **4. CLINICAL PARTICULARS**

### **4.1 Therapeutic indications**

Xydalba is indicated for the treatment of acute bacterial skin and skin structure infections (ABSSSI) in adults (see sections 4.4 and 5.1).

Consideration should be given to official guidance on the appropriate use of antibacterial agents.

### **4.2 Posology and method of administration**

#### Posology

##### *Recommended dose and duration of treatment for adults*

The recommended dose of dalbavancin in adult patients with ABSSSI is 1500 mg administered as either a single infusion of 1500 mg or as 1000 mg followed one week later by 500 mg (see sections 5.1 and 5.2).

##### *Elderly*

No dose adjustment is necessary (see section 5.2).

##### *Renal impairment*

Dose adjustments are not required for patients with mild or moderate renal impairment (creatinine clearance  $\geq 30$  to 79 ml/min). Dose adjustments are not required for patients receiving regularly scheduled haemodialysis (3 times/week), and dalbavancin may be administered without regard to the

timing of haemodialysis.

In patients with chronic renal impairment whose creatinine clearance is < 30 ml/min and who are not receiving regularly scheduled haemodialysis, the recommended dose is reduced to either 1000 mg administered as a single infusion or 750 mg followed one week later by 375 mg (see section 5.2).

#### *Hepatic impairment*

No dose adjustment of dalbavancin is recommended for patients with mild hepatic impairment (Child-Pugh A). Caution should be exercised when prescribing dalbavancin to patients with moderate or severe hepatic impairment (Child-Pugh B & C) as no data are available to determine appropriate dosing (see sections 5.2).

#### *Paediatric population*

The safety and efficacy of dalbavancin in children aged from birth to < 18 years has not yet been established. Currently available data are described in section 5.2 but no recommendation on a posology can be made.

#### Method of administration

##### *Intravenous use*

Xydalba must be reconstituted and then further diluted prior to administration by intravenous infusion over a 30 - minute period. For instructions on reconstitution and dilution of the medicinal product before administration, see section 6.6.

### **4.3 Contraindications**

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

### **4.4 Special warnings and precautions for use**

#### Hypersensitivity reactions

Xydalba should be administered with caution in patients known to be hypersensitive to other glycopeptides since cross-hypersensitivity may occur. If an allergic reaction to Xydalba occurs, administration should be discontinued and appropriate therapy for the allergic reaction should be instituted.

#### *Clostridium difficile*-associated diarrhoea

Antibacterial-associated colitis and pseudomembranous colitis have been reported with the use of nearly all antibiotics and may range in severity from mild to life threatening. Therefore, it is important to consider this diagnosis in patients who present with diarrhoea during or subsequent to the treatment with dalbavancin (see section 4.8). In such circumstance, the discontinuation of dalbavancin and the use of supportive measures together with the administration of specific treatment for *Clostridium difficile* should be considered. These patients must never be treated with medicinal products that suppress the peristalsis.

#### Infusion-related reactions

Xydalba is to be administered via intravenous infusion, using a total infusion time of 30 minutes to minimise the risk of infusion-related reactions. Rapid intravenous infusions of glycopeptide antibacterial agents can cause reactions that resemble “Red-Man Syndrome”, including flushing of the upper body, urticaria, pruritus, and/or rash. Stopping or slowing the infusion may result in cessation of these reactions.

### Renal impairment

Information on the efficacy and safety of dalbavancin in patients with creatinine clearance < 30 ml/min is limited. Based on simulations, dose adjustment is needed for patients with chronic renal impairment whose creatinine clearance is < 30 ml/min and who are not receiving regular haemodialysis (see sections 4.2 and 5.2).

### Mixed Infections

In mixed infections in which Gram-negative bacteria are suspected patients should also be treated with an appropriate antibacterial agent(s) against Gram-negative bacteria (see section 5.1).

### Non-susceptible organisms

The use of antibiotics may promote the overgrowth of non-susceptible micro-organisms. If superinfection occurs during therapy, appropriate measures should be taken.

### Limitations of the clinical data

There is limited data on safety and efficacy of dalbavancin when administered for more than two doses (one week apart). In the major trials in ABSSSI the types of infections treated were confined to cellulitis/erysipelas, abscesses and wound infections only. There is no experience with dalbavancin in the treatment of severely immunocompromised patients.

## **4.5 Interaction with other medicinal products and other forms of interaction**

Results from an *in vitro* receptor screening study do not indicate a likely interaction with other therapeutic targets or a potential for clinically relevant pharmacodynamic interactions (see section 5.1).

Clinical drug-drug interaction studies with dalbavancin have not been conducted.

### Potential for other medicinal products to affect the pharmacokinetics of dalbavancin.

Dalbavancin is not metabolised by CYP enzymes *in vitro*, therefore co-administered CYP inducers or inhibitors are unlikely to influence the pharmacokinetics of dalbavancin.

It is not known if dalbavancin is a substrate for hepatic uptake and efflux transporters. Co-administration with inhibitors of these transporters may increase the exposure to dalbavancin. Examples of such transporter inhibitors are boosted protease inhibitors, verapamil, quinidine, itraconazole, clarithromycin and cyclosporine.

### Potential for dalbavancin to affect the pharmacokinetics of other medicinal products.

The interaction potential of dalbavancin on medicinal products metabolised by CYP enzymes is expected to be low since it is neither an inhibitor nor an inducer of CYP enzymes *in vitro*. There are no data on dalbavancin as an inhibitor of CYP2C8.

It is not known if dalbavancin is an inhibitor of transporters. Increased exposure to transporter substrates sensitive for inhibited transporter activity, such as statins and digoxin, cannot be excluded if combined with dalbavancin.

## **4.6 Fertility, pregnancy and lactation**

### Pregnancy

There are no data from the use of dalbavancin in pregnant women. Studies in animals have shown reproductive toxicity (see section 5.3).

Xydalba is not recommended during pregnancy unless clearly necessary.

### Breast-feeding

It is unknown whether dalbavancin is excreted in human milk. However, dalbavancin is excreted in the milk of lactating rats and may be excreted in human breast milk. Dalbavancin is not well absorbed orally; however, an impact on the gastrointestinal flora or mouth flora of a breast-feeding infant cannot be excluded. A decision must be made whether to continue/discontinue breast-feeding or to continue/discontinue therapy with Xydalba taking into account the benefit of breast-feeding for the child and the benefit of therapy for the woman.

### Fertility

Studies in animals have shown reduced fertility (see section 5.3). The potential risk for humans is unknown.

## **4.7 Effects on ability to drive and use machines**

Xydalba may have a minor influence on the ability to drive and use machines, as dizziness has been reported in a small number of patients (see section 4.8).

## **4.8 Undesirable effects**

### Summary of the safety profile

In Phase 2 / 3 clinical studies, 2,473 patients received dalbavancin administered as either a single infusion of 1500 mg or as 1000 mg followed one week later by 500 mg. The most common adverse reactions occurring in  $\geq 1\%$  of patients treated with dalbavancin were nausea (2.4 %), diarrhoea (1.9 %), and headache (1.3 %) and were generally of mild or moderate severity.

### Tabulated list of adverse reactions (Table 1)

The following adverse reactions have been identified in Phase 2/3 clinical trials with dalbavancin. Adverse reactions are classified according to System Organ Class and frequency. Frequency categories are derived according to the following conventions: very common ( $\geq 1/10$ ), common ( $\geq 1/100$  to  $< 1/10$ ), uncommon ( $\geq 1/1,000$  to  $< 1/100$ ), rare ( $\geq 1/10,000$  to  $< 1/1,000$ ).

**Table 1**

System Organ Class	Common	Uncommon	Rare
<b>Infections and infestations</b>		vulvovaginal mycotic infection, urinary tract infection, fungal infection, <i>Clostridium difficile</i> colitis, oral candidiasis	
<b>Blood and lymphatic system disorders</b>		anaemia, thrombocytosis, eosinophilia, leucopenia, neutropenia	
<b>Immune system disorders</b>			anaphylactoid reaction
<b>Metabolism and nutrition disorders</b>		decreased appetite	
<b>Psychiatric disorders</b>		insomnia	
<b>Nervous system disorders</b>	headache	dysgeusia, dizziness	
<b>Vascular disorders</b>		flushing, phlebitis	
<b>Respiratory, thoracic and mediastinal disorders</b>		cough	bronchospasm
<b>Gastrointestinal disorders</b>	nausea, diarrhoea,	constipation, abdominal pain, dyspepsia, abdominal discomfort, vomiting	

System Organ Class	Common	Uncommon	Rare
Skin and subcutaneous tissue disorders		pruritus, urticaria, rash	
Reproductive system and breast disorders		vulvovaginal pruritus	
General disorders and administration site conditions		infusion-related reactions	
Investigations		blood lactate dehydrogenase increased, alanine aminotransferase increased, aspartate aminotransferase increased, blood uric acid increased, liver function test abnormal, transaminases increased, blood alkaline phosphatase increased, platelet count increased, body temperature increased, hepatic enzyme increased, gamma-glutamyl transferase increased,	

### Description of selected adverse reactions

#### *Class adverse reactions*

Ototoxicity has been associated with glycopeptide use (vancomycin and teicoplanin); patients who are receiving concomitant therapy with an ototoxic agent, such as an aminoglycoside, may be at increased risk.

### Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system listed in [Appendix V](#).

## **4.9 Overdose**

No specific information is available on the treatment of overdose with dalbavancin, as dose-limiting toxicity has not been observed in clinical studies. In Phase 1 studies, healthy volunteers have been administered single doses of up to 1500 mg, and cumulative doses up to 4500 mg over a period of up to 8 weeks, with no signs of toxicity or laboratory results of clinical concern. In Phase 3 studies, patients have been administered single doses of up to 1500 mg.

Treatment of overdose with dalbavancin should consist of observation and general supportive measures. Although no information is available specifically regarding the use of haemodialysis to treat overdose, it should be noted that in a Phase 1 study in patients with renal impairment, less than 6 % of the recommended dalbavancin dose was removed after 3 hours of haemodialysis.

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: antibacterials for systemic use, glycopeptide antibacterials, ATC code: J01XA04.

#### Mechanism of action

Dalbavancin is a bactericidal lipoglycopeptide.

Its mechanism of action in susceptible Gram-positive bacteria involves interruption of cell wall synthesis by binding to the terminal D-alanyl-D-alanine of the stem peptide in nascent cell wall

peptidoglycan, preventing cross-linking (transpeptidation and transglycosylation) of disaccharide subunits resulting in bacterial cell death.

### Mechanism of resistance

All Gram-negative bacteria are inherently resistant to dalbavancin.

Resistance to dalbavancin in *Staphylococcus* spp. and *Enterococcus* spp. is mediated by VanA, a genotype that results in modification of the target peptide in nascent cell wall. Based on *in vitro* studies the activity of dalbavancin is not affected by other classes of vancomycin resistance genes.

Dalbavancin MICs are higher for vancomycin-intermediate staphylococci (VISA) than for fully vancomycin susceptible strains. If the isolates with higher dalbavancin MICs represent stable phenotypes and are correlated with resistance to the other glycopeptides, then the likely mechanism would be an increase in the number of glycopeptide targets in nascent peptidoglycan.

Cross-resistance between dalbavancin and other classes of antibiotics was not seen in *in vitro* studies. Methicillin resistance has no impact on dalbavancin activity.

### Interactions with other antibacterial agents

In *in vitro* studies, no antagonism has been observed between dalbavancin and other commonly used antibiotics (i.e. cefepime, ceftazidime, ceftriaxone, imipenem, meropenem, amikacin, aztreonam, ciprofloxacin, piperacillin/tazobactam and trimethoprim/sulfamethoxazole), when tested against 12 species of Gram-negative pathogens (see section 4.5).

### Susceptibility testing breakpoints

Minimum inhibitory concentration (MIC) breakpoints determined by the European Committee on Antimicrobial Susceptibility Testing (EUCAST) are:

- *Staphylococcus* spp.: Susceptible  $\leq 0.125$  mg/l; Resistant  $> 0.125$  mg/l,
- Beta-haemolytic streptococci of Groups A, B, C, G: Susceptible  $\leq 0.125$  mg/l; Resistant  $> 0.125$  mg/l,
- Viridans group streptococci (*Streptococcus anginosus* group only): Susceptible  $\leq 0.125$  mg/l; Resistant  $> 0.125$  mg/l.

### PK/PD relationship

Bactericidal activity against staphylococci *in vitro* is time-dependent at serum concentrations of dalbavancin similar to those obtained at the recommended dose in humans. *In vivo* PK/PD relationship of dalbavancin for *S. aureus* was investigated using a neutropenic model of animal infection that showed that net reduction in the log<sub>10</sub> of colony-forming units (CFU) was greatest when larger doses were given less frequently.

### Clinical efficacy against specific pathogens

Efficacy has been demonstrated in clinical studies against the pathogens listed for ABSSSI that were susceptible to dalbavancin *in vitro*:

- *Staphylococcus aureus*,
- *Streptococcus pyogenes*,
- *Streptococcus agalactiae*,
- *Streptococcus dysgalactiae*,
- *Streptococcus anginosus* group (includes *S. anginosus*, *S. intermedius*, and *S. constellatus*).

### Antibacterial activity against other relevant pathogens

Clinical efficacy has not been established against the following pathogens although *in vitro* studies suggest that they would be susceptible to dalbavancin in the absence of acquired mechanisms of resistance:

- Group G streptococci
- *Clostridium perfringens*
- *Peptostreptococcus* spp.

### Paediatric population

The European Medicines Agency has deferred the obligation to submit the results of studies with Xydalba in one or more subsets of the paediatric population in ABSSSI (see sections 4.2 and 5.2 for information on paediatric use).

## **5.2 Pharmacokinetic properties**

The pharmacokinetics of dalbavancin have been characterised in healthy subjects, patients, and special populations. Systemic exposures to dalbavancin are dose proportional following single doses over a range of 140 to 1120 mg, indicating linear pharmacokinetics of dalbavancin. No accumulation of dalbavancin was observed following multiple intravenous infusions administered once-weekly for up to 8 weeks (1000 mg on Day 1, followed by up to 7 weekly 500 mg doses) in healthy adults.

The mean terminal elimination half-life ( $t_{1/2}$ ) was 372 (range 333 to 405) hours. The pharmacokinetics of dalbavancin are best described using a three-compartment model ( $\alpha$  and  $\beta$  distributional phases followed by a terminal elimination phase). Thus, the distributional half-life ( $t_{1/2\beta}$ ), which constitutes most of the clinically-relevant concentration-time profile, ranged from 5 to 7 days and is consistent with once-weekly dosing.

Estimated pharmacokinetic parameters of dalbavancin following the two-dose regimen and the single-dose regimen, respectively, are shown in Table 2 below.

**Table 2**

### **Mean (SD) dalbavancin pharmacokinetic parameters using population PK analysis<sup>1</sup>**

<b>Parameter</b>	<b>Two-dose regimen<sup>2</sup></b>	<b>Single-dose regimen<sup>3</sup></b>
$C_{max}$ (mg/L)	Day 1: 281 (52) Day 8: 141 (26)	Day 1: 411 (86)
AUC <sub>0-Day14</sub> (mg•h/L)	18100 (4600)	20300 (5300)
CL (L/h)	0.048 (0.0086)	0.049 (0.0096)

<sup>1</sup> Source: DAL-MS-01.

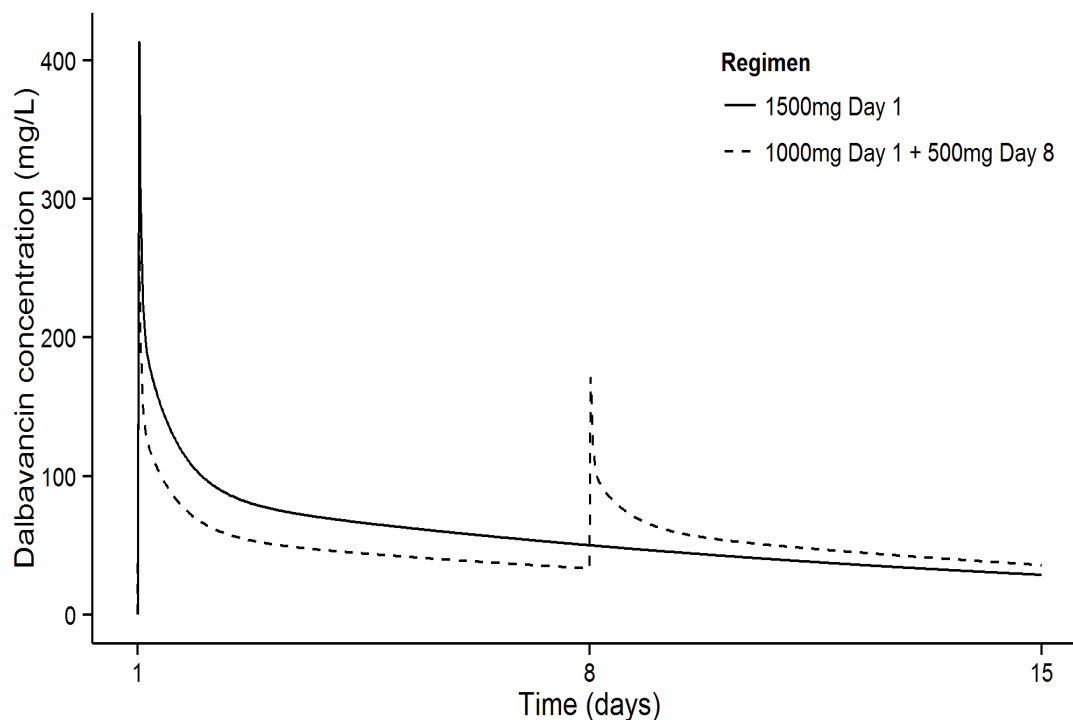
<sup>2</sup> 1000 mg on Day 1 + 500 mg on Day 8; Study DUR001-303 subjects with evaluable PK sample.

<sup>3</sup> 1500 mg; Study DUR001-303 subjects with evaluable PK sample.

The dalbavancin plasma concentration-time following the two-dose and the single-dose regimens, respectively, are shown in Figure 1.

**Figure 1. Dalbavancin Plasma Concentrations versus time in a typical ABSSSI patient (simulation using population pharmacokinetic model) for both the single and the two-dose**

regimens.



### Distribution

Clearance and volume of distribution at steady state are comparable between healthy subjects and patients with infections. The volume of distribution at steady state was similar to the volume of extracellular fluid. Dalbavancin is reversibly bound to human plasma proteins, primarily to albumin. The plasma protein binding of dalbavancin is 93 % and is not altered as a function of drug concentration, renal insufficiency, or hepatic insufficiency. Following a single intravenous dose of 1000 mg in healthy volunteers AUC in skin blister fluid amounted (bound and unbound dalbavancin) to approximately 60 % of the plasma AUC at day 7 post-dose.

### Biotransformation

Metabolites have not been observed in significant amounts in human plasma. The metabolites hydroxy-dalbavancin and mannosyl aglycone have been detected in urine (< 25 % of administered dose). The metabolic pathways responsible for producing these metabolites have not been identified; however, due to the relatively minor contribution of metabolism to the overall elimination of dalbavancin, drug-drug interactions via inhibition or induction of metabolism of dalbavancin are not anticipated. Hydroxy-dalbavancin and mannosyl aglycone show significantly less antibacterial activity compared to dalbavancin.

### Elimination

Following administration of a single 1000 mg dose in healthy subjects, an average of 19 % to 33 % of the administered dalbavancin dose was excreted in urine as dalbavancin and 8 % to 12 % as the metabolite hydroxy-dalbavancin. Approximately 20 % of the administered dose was excreted in faeces.

### Special populations

#### *Renal impairment*

The pharmacokinetics of dalbavancin were evaluated in 28 subjects with varying degrees of renal

impairment and in 15 matched control subjects with normal renal function. Following a single dose of 500 mg or 1000 mg dalbavancin, the mean plasma clearance ( $CL_T$ ) was reduced 11 %, 35 %, and 47 % in subjects with mild ( $CL_{CR}$  50 - 79 ml/min), moderate ( $CL_{CR}$  30 – 49 ml/min), and severe ( $CL_{CR}$  < 30 ml/min) renal impairment, respectively, compared to subjects with normal renal function. The mean AUC for subjects with creatinine clearance < 30 ml/min was approximately 2 - fold higher. The clinical significance of the decrease in mean plasma  $CL_T$ , and the associated increase in  $AUC_{0-\infty}$  noted in these pharmacokinetic studies of dalbavancin in subjects with severe renal impairment has not been established. Dalbavancin pharmacokinetics in subjects with end-stage renal disease receiving regularly scheduled renal dialysis (3 times/week) were similar to those observed in subjects with mild to moderate renal impairment, and less than 6 % of an administered dose is removed after 3 hours of haemodialysis. For dosing instructions in subjects with renal impairment refer to section 4.2.

### *Hepatic impairment*

The pharmacokinetics of dalbavancin were evaluated in 17 subjects with mild, moderate, or severe hepatic impairment and compared to 9 matched healthy subjects with normal hepatic function. The mean AUC was unchanged in subjects with mild hepatic impairment compared to subjects with normal hepatic function; however, the mean AUC decreased by 28 % and 31 %, respectively, in subjects with moderate and severe hepatic impairment. The cause and the clinical significance of the decreased exposure in subjects with moderate and severe hepatic function are unknown. For dosing instructions in subjects with hepatic impairment refer to section 4.2.

### *Gender*

Clinically significant gender-related differences in dalbavancin pharmacokinetics have not been observed in healthy subjects or in patients with infections. No dose adjustment is recommended based on gender.

### *Elderly*

The pharmacokinetics of dalbavancin were not significantly altered with age; therefore, dose adjustment is not necessary based on age (see section 4.2). The experience with dalbavancin in elderly is limited: 276 patients  $\geq$  75 years of age were included in the Phase 2/3 clinical studies, of which 173 received dalbavancin. Patients up to 93 years of age have been included in clinical studies.

### *Paediatric population*

The safety and efficacy of Xydalba in children aged from birth to < 18 years have not yet been established.

A total of 10 paediatric patients with ages 12 to 16 years who had resolving infections were given single doses of either dalbavancin 1000 mg (body weight  $\geq$  60 kg) or dalbavancin 15 mg/kg (body weight < 60 kg).

Mean plasma exposures for dalbavancin, based on  $AUC_{inf}$  (17,495  $\mu\text{g}\cdot\text{h/ml}$  and 16,248  $\mu\text{g}\cdot\text{h/ml}$ ) and  $C_{max}$  (212  $\mu\text{g/ml}$  and 191  $\mu\text{g/ml}$ ) were similar when administered as 1000 mg to paediatric subjects (12-16 years) weighing > 60 kg (61.9 - 105.2 kg) or as 15 mg/kg to paediatric subjects weighing < 60 kg (47.9-58.9 kg). Apparent terminal  $t_{1/2}$  was similar for dalbavancin doses of 1000 mg and 15 mg/kg, with mean values of 227 and 202 hours, respectively. The safety profile of dalbavancin in the subjects aged between 12 and 16 years in this study was consistent with the safety profile observed in adults treated with dalbavancin.

## **5.3 Preclinical safety data**

Dalbavancin toxicity has been evaluated after daily intravenous administration for durations of up to 3 months in rats and dogs. Dose-dependent toxicity included serum chemistry and histological evidence of renal and hepatic injury, reduced red blood cell parameters and injection site irritation. In

dogs only, infusion reactions characterised by skin swelling and/or redness (not associated with the injection site), mucosal pallor, salivation, vomiting, sedation, and modest declines in blood pressure and increases in heart rate were observed in a dose-dependent manner. These infusion reactions were transient (resolved within 1 hour post-dosing) and were attributed to histamine release. Dalbavancin toxicity profile in juvenile rats was consistent with that previously observed in adult rats at the same dose (mg/kg /day) levels.

Reproductive toxicity studies in rats and rabbits showed no evidence of a teratogenic effect. In rats, at exposures approximately 3 times above clinical exposure, there was reduced fertility and an increased incidence of embryo-lethality, reductions in foetal weight and skeletal ossification and increased neonatal mortality. In rabbits abortion occurred in conjunction with maternal toxicity at exposures below the human therapeutic range.

Long-term carcinogenicity studies have not been conducted. Dalbavancin was not mutagenic or clastogenic in a battery of *in vitro* and *in vivo* genotoxicity tests.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Mannitol (E421)  
Lactose monohydrate  
Hydrochloric acid (for pH-adjustment)  
Sodium hydroxide (for pH-adjustment)

### **6.2 Incompatibilities**

Sodium chloride solutions may cause precipitation and must not be used for reconstitution or dilution (see section 6.6).

This medicinal product must not be mixed with other medicinal products or intravenous solutions other than those mentioned in section 6.6.

### **6.3 Shelf life**

Dry powder: 4 years

Chemical and physical in-use stability of Xydalba has been demonstrated for both the reconstituted concentrate and for the diluted solution for 48 hours at or below 25 °C. The total in-use stability from reconstitution to administration should not exceed 48 hours.

From a microbiological point of view, the product should be used immediately. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user and would normally not be longer than 24 hours at 2 to 8 °C, unless reconstitution/dilution has taken place in controlled and validated aseptic conditions. Do not freeze.

### **6.4 Special precautions for storage**

This medicinal product does not require any special storage conditions.

For storage conditions after reconstitution and dilution of the medicinal product, see section 6.3.

### **6.5 Nature and contents of container**

Single-use 48 ml type I glass vial with an elastomeric stopper and a green flip off seal.

Each pack contains 1 vial.

## 6.6 Special precautions for disposal and other handling

Xydalba must be reconstituted with sterile water for injections and subsequently diluted with 50 mg/ml (5 %) glucose solution for infusion.

Xydalba vials are for single-use only.

### Instructions for reconstitution and dilution

Aseptic technique must be used for reconstitution and dilution of Xydalba.

1. The content of each vial must be reconstituted by slowly adding 25 ml of water for injections.
2. **Do not shake.** To avoid foaming, alternate between gentle swirling and inversion of the vial, until its contents are completely dissolved. The reconstitution time may be up to 5 minutes.
3. The reconstituted concentrate in the vial contains 20 mg/ml dalbavancin.
4. The reconstituted concentrate must be a clear, colourless to yellow solution with no visible particles.
5. The reconstituted concentrate must be further diluted with 50 mg/ml (5 %) glucose solution for infusion.
6. To dilute the reconstituted concentrate, the appropriate volume of the 20 mg / ml concentrate must be transferred from the vial to an intravenous bag or bottle containing 50 mg/ml (5 %) glucose solution for infusion. For example: 25 ml of the concentrate contains 500 mg dalbavancin.
7. After dilution the solution for infusion must have a final concentration of 1 to 5 mg/ml dalbavancin
8. The solution for infusion must be clear, colourless to yellow solution with no visible particles.
9. If particulate matter or discoloration is identified, the solution must be discarded.

Xydalba must not be mixed with other medicinal products or intravenous solutions. Sodium chloride containing solutions can cause precipitation and should NOT be used for reconstitution or dilution. The compatibility of reconstituted Xydalba concentrate has only been established with 50 mg/ml (5 %) glucose solution for infusion.

### Disposal

Discard any portion of the reconstituted solution that remains unused.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

## 7. MARKETING AUTHORISATION HOLDER

Allergan Pharmaceuticals International Ltd.,  
Clonsaugh Industrial Estate, Coolock,  
Dublin 17,  
Ireland

## 8. MARKETING AUTHORISATION NUMBER(S)

EU/1/14/986/001

**9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 19 February 2015

**10. DATE OF REVISION OF THE TEXT**

Detailed information on this medicinal product is available on the website of the European Medicines Agency <http://www.ema.europa.eu>.

## **ANNEX II**

- A. MANUFACTURER RESPONSIBLE FOR BATCH RELEASE**
- B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE**
- C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION**
- D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT**

## **A. MANUFACTURER RESPONSIBLE FOR BATCH RELEASE**

Name and address of the manufacturer responsible for batch release

Almac Pharma Services Limited  
Seagoe Industrial Estate  
Craigavon  
Co Armagh  
BT63 5UA  
United Kingdom

## **B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE**

Medicinal product subject to medical prescription.

## **C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION**

### **• Periodic Safety Update Reports**

The marketing authorisation holder shall submit the first periodic safety update report for this product within 6 months following authorisation. Subsequently, the marketing authorisation holder shall submit periodic safety update reports for this product in accordance with the requirements set out in the list of Union reference dates (EURD list) provided for under Article 107c(7) of Directive 2001/83/EC and published on the European medicines web-portal.

## **D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT**

### **• Risk Management Plan (RMP)**

The MAH shall perform the required pharmacovigilance activities and interventions detailed in the agreed RMP presented in Module 1.8.2 of the Marketing Authorisation and any agreed subsequent updates of the RMP.

An updated RMP should be submitted:

- At the request of the European Medicines Agency;
- Whenever the risk management system is modified, especially as the result of new information being received that may lead to a significant change to the benefit/risk profile or as the result of an important (pharmacovigilance or risk minimisation) milestone being reached.

If the dates for submission of a PSUR and the update of a RMP coincide, they can be submitted at the same time.

**ANNEX III**  
**LABELLING AND PACKAGE LEAFLET**

## **A. LABELLING**

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING****Carton****1. NAME OF THE MEDICINAL PRODUCT**

Xydalba 500 mg powder for concentrate for solution for infusion  
Dalbavancin

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

Each vial contains dalbavancin hydrochloride equivalent to 500 mg of dalbavancin.  
After reconstitution each ml contains 20 mg dalbavancin.

**3. LIST OF EXCIPIENTS**

Mannitol (E421),  
Lactose monohydrate,  
Sodium hydroxide and/or hydrochloric acid (for pH adjustment)

**4. PHARMACEUTICAL FORM AND CONTENTS**

Powder for concentrate for solution for infusion

1 vial

**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

Read the package leaflet before use.  
Intravenous use after reconstitution and dilution.  
For single use only

**6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN**

Keep out of the sight and reach of children.

**7. OTHER SPECIAL WARNING(S), IF NECESSARY****8. EXPIRY DATE**

EXP

**9. SPECIAL STORAGE CONDITIONS**

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
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<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
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Allergan Pharmaceuticals International Ltd.,  
Clonshaugh Industrial Estate, Coolock,  
Dublin 17,  
Ireland

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
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EU/1/14/986/001

<b>13. BATCH NUMBER</b>
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Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--

Medicinal product subject to medical prescription.

<b>15. INSTRUCTIONS ON USE</b>
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<b>16. INFORMATION IN BRAILLE</b>
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Justification for not including Braille accepted

<b>MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS</b>
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<b>Vial label</b>
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<b>1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION</b>
--

Xydalba 500 mg powder for concentrate  
Dalbavancin  
intravenous use after reconstitution and dilution

<b>2. METHOD OF ADMINISTRATION</b>
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<b>3. EXPIRY DATE</b>
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EXP

<b>4. BATCH NUMBER</b>
------------------------

Lot

<b>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</b>
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<b>6. OTHER</b>
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Allergan Pharmaceuticals International Ltd.

## **B. PACKAGE LEAFLET**

## Package leaflet: Information for the patient

### Xydalba 500 mg powder for concentrate for solution for infusion dalbavancin

▼ This medicine is subject to additional monitoring. This will allow quick identification of new safety information. You can help by reporting any side effect(s) you may get. See the end of section 4 for how to report side effects.

**Read all of this leaflet carefully before you are given this medicine because it contains important information for you.**

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor, pharmacist or nurse.
- If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. See section 4.

#### What is in this leaflet

1. What Xydalba is and what it is used for
2. What you need to know before you are given Xydalba
3. How you will be given Xydalba
4. Possible side effects
5. How to store Xydalba
6. Contents of the pack and other information

#### 1. What Xydalba is and what it is used for

Xydalba contains the active substance dalbavancin, which is an **antibiotic** of the glycopeptide group.

Xydalba is used to treat **adults with infections of the skin or in the layers of flesh below the skin.**

Xydalba works by killing certain bacteria, which can cause serious infections. It kills these bacteria by interfering with the formation of bacterial cell walls.

If you also have other bacteria that cause your infection, your doctor may decide to treat you with other antibiotics in addition to Xydalba.

#### 2. What you need to know before you are given Xydalba

**Do not use Xydalba** if you are **allergic** to dalbavancin or any of the other ingredients of this medicine (listed in section 6).

#### Warnings and precautions

**Talk to your doctor, pharmacist or nurse before being given Xydalba:**

- If you have or have had **kidney problems**. Depending on the condition of your kidney, your doctor may have to reduce your dose.
- If you are suffering from **diarrhoea**, or you have previously suffered from diarrhoea when being treated with antibiotics.
- If you are **allergic** to other antibiotics such as vancomycin or teicoplanin.

#### Diarrhoea during or after treatment

If you develop **diarrhoea during or after** your treatment, tell your doctor **at once**. Do not take any medicine to treat your diarrhoea without first checking with your doctor.

### Infusion-related reactions

Intravenous infusions with these types of antibiotics can cause flushing of the upper body, hives, itching and/or rashes. If you experience these types of reactions your doctor may decide to stop or slow the infusion.

### Other infections

Using antibiotics may sometimes allow a new and different infection to develop. If this happens tell your doctor and they will decide what to do.

### **Children and adolescents**

Do not give this medicine to children under 18 years of age. The use of Xydalba in children under 18 has not yet been studied.

### **Other medicines and Xydalba**

Tell your doctor or pharmacist if you are taking, or have recently taken or might take any other medicines.

### **Pregnancy and breast-feeding**

Xydalba is not recommended during pregnancy unless clearly necessary. This is because it is not known what effect it might have on an unborn baby. Before you are given this medicine, tell your doctor if you are pregnant, think you may be pregnant or are planning to have a baby. You and your doctor will decide if you will be given Xydalba.

It is not known if Xydalba passes into breast milk in humans. Ask your doctor for advice before breast-feeding your baby. You and your doctor will decide if you will be given Xydalba. You should not breastfeed when given Xydalba.

### **Driving and using machines**

Xydalba may cause dizziness. Take care with driving and using machines after you have been given this medicine.

### **Xydalba contains sodium**

This medicinal product contains less than 1 mmol sodium (23 mg) per dose, so it is essentially 'sodium-free'.

## **3. How you will be given Xydalba**

Xydalba will be given to you by a doctor or nurse.

Xydalba is given in a single dose of 1500 mg or in two doses a week apart: 1000 mg on Day 1 and 500 mg on Day 8.

You will be given Xydalba through a drip directly into your bloodstream through a vein (intravenously) over 30 minutes.

### **Patients with chronic kidney problems**

If you suffer from chronic kidney problems, your doctor may decide to reduce your dose.

### **If you are given more Xydalba than you should**

Tell your doctor or nurse immediately if you are concerned that you may have been given too much Xydalba.

### **If you miss a dose of Xydalba**

Tell your doctor or nurse immediately if you are concerned that you are missing the 2<sup>nd</sup> dose.

If you have any further questions on the use of this medicine, ask your doctor, pharmacist or nurse.

## **4. Possible side effects**

Like all medicines, this medicine can cause side effects, although not everybody gets them.

### **Serious side effects**

**Tell your doctor straight away if you get any of these symptoms - you may need urgent medical attention:**

- **Sudden swelling of your lips, face, throat or tongue; severe rash; itchiness; throat tightening; drop in blood pressure; difficulty in swallowing and /or difficulty in breathing.** These may all be signs of a hypersensitivity reaction and may be life-threatening. This severe reaction has been reported as a rare side effect. It may affect up to 1 in 1000 people.
- **Abdominal pain (stomach ache) and/or watery diarrhoea.** The symptoms may become severe or may not go away and the stools may contain blood or mucus. These may be signs of an infection of the bowel. In this situation, you should **not** take medicines that stop or slow bowel movement. Infection of the bowel has been reported as an uncommon side effect. It may affect up to 1 in 100 people.
- **Changes in hearing.** This has been reported as a side effect with a similar medicine. The frequency is not known. The frequency cannot be estimated from the available data.

**Other side effects reported with Xydalba are listed below.**

**Talk to your doctor, pharmacist or nurse if you get any of the following side effects:**

**Common** - may affect up to 1 in 10 people:

- Headache
- Feeling sick (nausea)
- Diarrhoea

**Uncommon** - may affect up to 1 in 100 people:

- Vaginal infections, fungal infections, oral thrush
- Urinary tract infections
- Anaemia (low levels of red blood cells), high blood platelet counts (thrombocytosis), increased blood counts of a type of white blood cell called eosinophils (eosinophilia), low levels of other types of white blood cell (leucopenia, neutropenia)
- Changes in other blood tests
- Decreased appetite
- Difficulty sleeping
- Dizziness
- Change in sense of taste
- Inflammation and swelling of surface veins, flushing
- Cough
- Abdominal pain and discomfort, indigestion, constipation
- Liver function test abnormal

- An increase in alkaline phosphatase (an enzyme found in the body)
- Itching, hives
- Genital itching (females)
- Pain, redness or swelling at the place where the infusion was given
- Feeling hot
- Increase in blood levels of gamma-glutamyl transferase (an enzyme produced by the liver and other body tissues)
- Rash
- Being sick (vomiting)

**Rare** - may affect up to 1 in 1000 people:

- Difficulty breathing (bronchospasm)

### **Reporting of side effects**

If you get **any side effects**, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via [the national reporting system](#) listed in [Appendix V](#). By reporting side effects you can help provide more information on the safety of this medicine.

## **5. How to store Xydalba**

Keep this medicine out of the sight and reach of children.

**Do not** use this medicine after the expiry date which is stated on the vial after EXP. The expiry date refers to the last day of that month.

This medicine does not require any special storage conditions if kept unopened in the original container.

The prepared Xydalba solution for infusion must not be used if there are any particles or the solution is cloudy.

Xydalba is for single use only.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

## **6. Contents of the pack and other information**

### **What Xydalba contains**

- The active substance is dalbavancin. Each vial of powder contains dalbavancin hydrochloride equivalent to 500 mg of dalbavancin.
- The other ingredients are mannitol (E421), lactose monohydrate, hydrochloric acid and/or sodium hydroxide (for pH adjustment only).

### **What Xydalba looks like and contents of the pack**

Xydalba powder for concentrate for solution for infusion is provided in a 48 ml glass vial with a green flip off seal. The vial contains white to pale yellow powder.

It is available in packs containing 1 vial.

## **Marketing Authorisation Holder**

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## **Manufacturer**

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**This leaflet was last revised in {MM/YYYY}.**

Detailed information on this medicine is available on the European Medicines Agency web site:  
<http://www.ema.europa.eu>.

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**The following information is intended for medical or healthcare professionals only:**

**Important:** Please refer to the Summary of Product Characteristics (SmPC) before prescribing.

Xydalba must be reconstituted with sterile water for injections and subsequently diluted with 50 mg/ml (5 %) glucose solution for infusion.

Xydalba vials are for single-use only.

#### Instructions for reconstitution and dilution

Aseptic technique must be used for reconstitution and dilution of Xydalba.

1. The content of each vial must be reconstituted by slowly adding 25 ml of water for injections.
2. **Do not shake.** To avoid foaming, alternate between gentle swirling and inversion of the vial, until its contents are completely dissolved. The reconstitution time may be up to 5 minutes.
3. The reconstituted concentrate in the vial contains 20 mg /ml dalbavancin.
4. The reconstituted concentrate must be a clear, colourless to yellow solution with no visible particles.
5. The reconstituted concentrate must be further diluted with 50 mg/ml (5 %) glucose solution for infusion.
6. To dilute the reconstituted concentrate, the appropriate volume of the 20 mg/ml concentrate must be transferred from the vial to an intravenous bag or bottle containing 50 mg/ml (5 %) glucose solution for infusion. For example: 25 ml of the concentrate contains 500 mg dalbavancin.
7. After dilution the solution for infusion must have a final concentration of 1 to 5 mg/ml dalbavancin
8. The solution for infusion must be clear, colourless to yellow solution with no visible particles.
9. If particulate matter or discoloration is identified, the solution must be discarded.

Xydalba must not be mixed with other medicinal products or intravenous solutions. Sodium chloride containing solutions can cause precipitation and should NOT be used for reconstitution or dilution. The compatibility of reconstituted Xydalba concentrate has only been established with 50 mg/ml (5 %) glucose solution for infusion.

#### Disposal

Discard any portion of the reconstituted solution that remains unused.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.