

DiseaseINFOPACK: *Clostridium difficile* (CAT: VADIP001)

Proposal No/#PO	:	[Enter client specific #PO]
Product Name	:	Comprehensive review/analysis of <i>Clostridium difficile</i> associated disease (DiseaseINFOPACK)
Project Initiation Date	:	n/a
Billable days	:	n/a
Initiator(s)	:	[Enter client name, function and address]
Therapeutic Area	:	<i>Clostridium difficile</i> /antibiotics
Product (if applicable)	:	CAT No: VADIP001, published/updated November 2008

Background

Clostridium difficile (C.diff) is a Gram-positive bacterium, which in vulnerable hospitalized patients can cause gastrointestinal infections (CDAD). Outcomes range from mild uncomplicated diarrhea to severe-complicated disease where patients experience fever, tachycardia and pseudomembranous colitis. Risk factors for C.diff infections are >65 yrs of age, hospitalization, severe underlying illness coupled with chronic antibiotic therapy.

Although CDAD can be managed usually by stopping antibiotic therapy or the use of metronidazole and vancomycin treatment, patient mortality can still reach 6-30%¹. In some patients with toxic megacolon who require surgical intervention or colectomy, mortality can reach even higher rates of 35-50%. In the UK, C.diff is estimated to have been a factor in the death of over 3000 people in 2005 (ONS Figures) with numbers often exceeding MRSA related deaths. *Clostridium difficile* can also cause hospital outbreaks associated with ward closures and high economic cost.

In the US, the Centers for Disease Control and Prevention (CDC) estimates that 400-500,000 cases of CDAD occurred in 2004 where incidence is estimated at 10-200 cases per 10,000 admissions². More significantly, previous research conducted by **VacZine Analytics**³ with international opinion leaders indicates that they believe the incidence of CDAD is increasingly year-on-year in their countries. This dynamic coupled with increasing disease severity and a lack of newer treatments has prompted the search for newer antibiotics and biologic based strategies including prophylatic vaccines/passive monoclonals.

¹ Bartlett JG et al. Clinical Practice. Antibiotic-associated diarrhea. N Engl J Med 2002; 31; 346: 334-9

² US Centers For Disease Control and Prevention (CDC). Available at: http://www.cdc.gov/ncidod/dhqp/id_cdifff.html. Accessed July: 2008.

³ **VacZine Analytics**. *Clostridium difficile*. DiseaseINFOPACK (CAT No: VADIP001) and OpportunitySCAN (CAT No: VAOPS001), previously published August 2008

PRODUCT CONTENTS:

Published/updated November 2008.

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*Other EU countries available upon request

^ For an in depth analysis of the C.diff active vaccine opportunity please refer to products CAT Nos: VAOPS001 and VAMV001

PAGES: >100 powerpoint slides, fully referenced/sourced

PROJECT METHODOLOGY:

VacZine Analytics has conducted a comprehensive secondary research to review all available information regarding Clostridium difficile in major EU/Canada and US markets. Source materials used are literature articles, government websites, medical bodies and associations, conference proceedings etc.

Published research from **VacZine Analytics** has also been utilised.

****NOTE**** International global opinion leaders/experts in CDI were interviewed as part of this research. Their contribution is anonymous.

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