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Drug Class	α -Glucosidase inhibitors; Antidiabetic agents; Oral hypoglycemic agents
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Usage With Qualifiers	<p>Diabetes mellitus, type 2—begin 25mg (50mg if tolerated) thereafter 50–700mg PO q tid (max) on glucose levels</p> <ul style="list-style-type: none"> • Contraindications—hypersensitivity to drug or drug class, chronic intestinal obstruction or malabsorption syndrome • Caution—renal dysfunction
Maternal Considerations	<p>Acarbose has been shown to reduce/delay the onset of type 2 diabetes in patients with impaired glucose intolerance. There are no adequate reports or well-controlled studies of acarbose in pregnant women. Two studies of pregnant women with impaired glucose tolerance compare acarbose to other oral hypoglycemic agents. Acarbose produced outcomes as good or superior to insulin and glyburide. Side effects include intestinal discomfort consisting of pain, diarrhea, flatulence, elevated LFTs, and jaundice.</p>
Fetal Considerations	<p>There are no adequate reports or well-controlled studies in humans fetuses. Only 2% of the oral dose is absorbed. Rodent studies are reassuring, revealing no evidence of teratogenicity or JUGH, despite the use of doses almost 10x higher than those used clinically.</p>
Breastfeeding Safety	<p>There is no published experience in nursing women. It is unknown whether acarbose enters human breast milk. However, < 2% of acarbose is bioavailable. It is unlikely any would be excreted into the milk and/or absorbed by the neonate. The drug and/or its metabolites have been found in the milk of lactating rats at levels reaching 10 times the maternal plasma levels. A single rat study suggests acarbose might alter the composition of breast milk by inhibiting lipogenesis.</p>
Drug Interactions	<p>Some drugs such as thiazides (and other class diuretics), corticosteroids, sympathomimetic thyroid products, adrenergic oral contraceptives, phenytoin, salicylic acid, sympathomimetic calcium channel blocking drugs, and tacrolimus can cause hyperglycemia. When taking both acarbose and one of these drugs should be monitored closely for loss of glucose control. Discontinuation of such drugs may lead to hypoglycemia. Intestinal adsorbents (e.g., charcoal) and digestive enzymes such as amylase and pectinase may obscure the effect of acarbose and should not be taken together. Acarbose may alter digoxin bioavailability when they are co-administered. Smoking may decrease acarbose metabolism. Quinolone antibiotics, SGLT inhibitors, and MGLI inhibitors may enhance the hypoglycemic effect of acarbose and other blood glucose lowering agents.</p>
References	<p>Hanfald M, Schaper F, Koehler C. <i>Cardiovascular Drugs Ther</i> 2008; 23:225-31. Meyer SW, Williamson DJ. <i>Biochem J</i> 1987; 242:235-43. Product information. Precose, Bayer Corp, 1997. Zarate A, Ochoa B, Hernandez M, Baurin L. <i>Ginecol Obstet Mex</i> 2002; 68:42-3. Bertini AM, Silva J, Taborda W, et al. <i>J Perinat Med</i> 2005; 33:519-23.</p>
Summary	<p>Pregnancy Category: B Lactation Category: ? (L1-4) • Insulin and diet remain the standard treatment for glucose intolerance during pregnancy. • There is a growing interest in the use of oral hypoglycemic agents during pregnancy, and acarbose is an interesting candidate.</p>