Shigella spp. Shigella spp. (S. dysenteriae, Shigella flexneri, Shigella boydii, and Shigella sonnei) are nonmotile; lysine decarboxylase–negative; citrate–, malonate–, and H2 S–negative; non–lactose fermenting; gram–negative rods that grow well on MacConkey agar. All strains ferment glucose without gas production, except a few strains (S. flexneri serotype 6 and S. boydii serotype 14). The four subgroups of Shigella spp. are S. dysenteriae (group A), S. flexneri (group B), S. boydii (group C), and S. sonnei (group D). Each subgroup has several serotypes. Serotyping is based on the somatic LPS O antigen. Shigella and inactive E. coli strains are often very difficult to distinguish. After presumptive identi fication of a suspected Shigella species based on traditional bio chemical methods, serotyping should be completed, especially in the case of S. dysenteriae. Suspected strains of Shigella spp. that cannot be typed by serologic methods should be referred to a reference laboratory for further testing. Shigellosis may begin as watery diarrhea, fever, and abdominal cramps. Progressive infection then leads to dys entery with stools that contain blood or mucus. Lesions in the intestinal tract typically remain confined to the large intestine. Bloodstream infections are rare. All Shigella are capable of causing dysentery. However, S. dysenteriae 1 produces the most severe forms of illness and may lead to hemolytic uremic syndrome (HUS).

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