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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Acute infectious diarrhea | | | | | | | | | |
| **A)Food Poisoning** | Source | Gram Stain | IP | | Pathogenesis | Symptoms | Diagnosis | | Treatment |
| *Staphylococcus aureus* | **Meats, potato** & **dairy products**. | Gram positive cocci in cluster | 6-12 hrs | | Enterotoxin mediated  Small Intestines | Vomiting, Diarrahae and abdominal pain | Routine bacterial culture | | Self-limiting in 1-2 days. Observation, fluid replacement if needed |
| *Clostridium perfringens* |  | Anaerobic  Gram Positive bacilli |
| *Bacillus cereus* | **Meats & fried rice** | Aerobic  Gram Positive bacilli |
| Other : | viral and some parasitic infection | | | | | | | | |
| **B)Invasive (**Dysentery) |  | | | | | | | | |
| *Salmonella species* | **Reptile** | Gram Negative bacilli  (Lactose Non-fermenter) | 1-3 days | | Invasion and damage of mucosa of large intestines | Sever lower abdominal pain, fever and diarrhea with blood and or mucous( GB and Reactive arthritis in campy)   * GB and Reactive arthritis | Routine stool culture  (Selective and differential media and serotyping)  Campy lobacter  microaerophilic and 42 oC | | Treatment in special circumstances except shigella always treat |
| *Campylobacter jejuni* | **Poultry & dairy products** | Gram Negative bacilli  Segal shape |
| *E. coli,* Enteroinvasive (EIEC) and EHEC | **Many Food** | Gram Negative bacilli  (Lactose fermenter) |
| *Shigella species* | **Human** | Gram Negative bacilli(Lactose Non-fermenter) |
| *Endameba histolytica* | **Human** | Protozoa |  | | Microscopy | | Flagyl |
| **Antibiotic-Associated diarrhea** |  | | | | | | | | |
| *Clostridium difficile* | **Human GIT** | Anaerobic  Gram Positive bacilli | 1-3 days | Antibiotics use overgrowth of the bacteraia that produce toxin A and B leads to Invasion and damage of mucosa of large intestines | | Diarrhea bloody , abdominal pain (pseudomembranous colitis and toxic megacolon | | Culture  Cytotoxicity  Toxin detection  (immunological or molecular tests) | Flagyl +/- vancomycin |
| **Others causes of Infectious diarrhea** |  | | | | | | | | |
| *Listeria monocytogenes* | **Meat & Dairy product** | Anaerobic  Gram Positive bacilli | 2-3 weeks | Oro-fecal and perinatal transmission  (Intracellular) | | Blood infection in the mother and meningitis in the neonate | | Cold enrichment | ampicilin |
| *Yersinia enterocolitica* | **Animal GIT** | Gram Negative bacilli | 1-3 days | Oro-fecal transmission | | mimic appendicitis | | Cold enrichment  CIN media | Ciprofluxacin |
| **Travelers’ diarrhea** |  | | | | | | | | |
| Enterotoxogenic *E.coli*  (ETEC) | **Many food** | Gram Negative bacilli | 1-3 days | Oro-fecal transmission has HLT and HST | | Watery diarrhea | | Routine stool culture | Ciprofluxacin |
| **Other pathogenic *E.coli*** |  | | | | | | | | |
| Entrohemorrhagic *E.coli*  *EHEC* | Cause initial mild diarrhea then sever bloody hemorrhagic colitis and can lead to renal failure and possibly Central nervous system involvements due to destruction of capillary in the kidney and brain tissue and this disease call hemolytic uremic syndrome (HUS) or hamburger disease because the source usually is beef (due to contamination with feces from animal GIT tract)  O157H7 most common  O104 H4 recent outbreak in Germany | | | | | | | | |
| Enteropathogenic *E.coli*  EPEC | Major cause of infantile diarrhea , can cause outbreak in the hospitals | | | | | | | | |
| Enteroaggregative *E.coli*  EAEC | Not very common cause of pediatrics diarrhea | | | | | | | | |