ASSIGNMENT NO. 1

ZOO103 – Principles of Systematics

SPRING 2022

Total Marks: 10

Due date: 23-05-2022

You're Name

Vu id

University Name

Instructor Name: Ms. Hajra Ishaq

Task Assigned as Assignment # 1

Read any Article of Your Choice Related to the Biological Domain and write down its Summarized details in your own words as follows: -

(10)

1. **Title of the Article (As it is written in the article)**
2. **Introduction**
3. **Methodology**
4. **Results**
5. **Conclusion**

Solution:

Diarrhea:

Introduction:

The word diarrhea is from the Ancient Greek διάρροια from διά *dia* "through" and ῥέω *rheo* "flow".

Diarrhea is the spelling in American English, whereas *diarrhoea* is the spelling in British English.

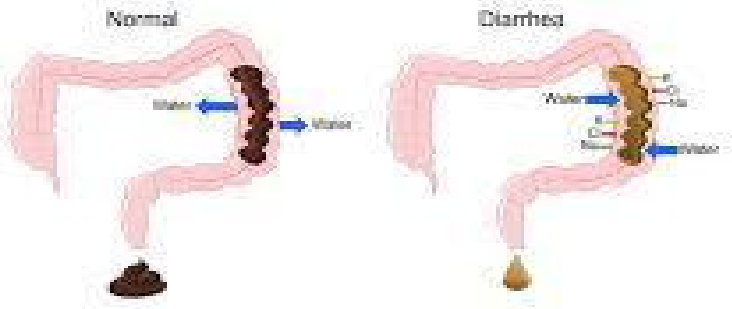
Slang terms for the condition include "the runs", "the squirts" (or "squits" in Britain[113]) and "the trots".

Diarrhea is defined by the World Health Organization as having three or more loose or liquid stools per day, or as having more stools than is normal for that person.[2]

Acute diarrhea is defined as an abnormally frequent discharge of semisolid or fluid fecal matter from the bowel, lasting less than 14 days, by World Gastroenterology Organization.[14] Acute diarrhea that is watery may be known as AWD (Acute Watery Diarrhoea.)[1]

Loose, watery and possibly more-frequent bowel movements — is a common problem. It may be present alone or be associated with other symptoms, such as nausea, vomiting, abdominal pain or weight loss. Luckily, diarrhea is usually short-lived, lasting no more than a few days.

Diarrhea



Methodology:

Deaths due to diarrhoeal diseases per million persons in 2012

Worldwide in 2004, approximately 2.5 billion cases of diarrhea occurred, which resulted in 1.5 million deaths among children under the age of five.[1] Greater than half of these were in Africa and South Asia.[1] This is down from a death rate of 4.5 million in 1980 for gastroenteritis.[108] Diarrhea remains the second leading cause of infant mortality (16%) after pneumonia (17%) in this age group.[1]

The majority of such cases occur in the developing world, with over half of the recorded cases of childhood diarrhea occurring in Africa and Asia, with 696 million and 1.2 billion cases, respectively, compared to only 480 million in the rest of the world.[109]

Results:

Infectious diarrhea resulted in about 0.7 million deaths in children under five years old in 2011 and 250 million lost school days.[58][110] In the Americas, diarrheal disease accounts for a total of 10% of deaths among children aged 1–59 months while in South East Asia, it accounts for 31.3% of deaths.[111] It is estimated that around 21% of child mortalities in developing countries are due to diarrheal disease.[112]

It can be divided into three basic categories: **watery, fatty (malabsorption), and inflammatory**. Watery diarrhea may be subdivided into osmotic, secretory, and functional types. Watery diarrhea includes irritable bowel syndrome, which is the most common cause of functional diarrhea.

Throughout history, **infectious diarrhea has been associated with crowding, poor sanitation, and war**. Although descriptions of infectious diarrhea exist in the earliest records of civilization, effective measures for prevention were not widely or consistently used until the modern era of active public health promotion.

According to two researchers, Nesse and Williams, diarrhea may function as an evolved expulsion defense mechanism. As a result, if it is stopped, there might be a delay in recovery.[51] They cite in support of this argument research published in 1973 that found that treating *Shigella* with the anti-diarrhea drug (Co-phenotrope, Lomotil) caused people to stay feverish twice as long as those not so treated. The researchers indeed themselves observed that: "Lomotil may be contraindicated in shigellosis. Diarrhea may represent a defense mechanism".

The most common cause of diarrhea is **a virus that infects your bowel** (“viral gastroenteritis”). The infection usually lasts a couple of days and is sometimes called “intestinal flu.” Other possible causes of diarrhea can include: Infection by bacteria.

In adults, diarrhea usually improves within **2 to 4 days**, although some infections can last a week or more.

Causes

In the latter stages of human digestion, ingested materials are inundated with water and digestive fluids such as gastric acid, bile, and digestive enzymes in order to break them down into their nutrient components, which are then absorbed into the bloodstream via the intestinal tract in the small intestine. Prior to defecation, the large intestine reabsorbs the water and other digestive solvents in the waste product in order to maintain proper hydration and overall equilibrium.[23] Diarrhea occurs when the large intestine is prevented, for any number of reasons, from sufficiently absorbing the water or other digestive fluids from fecal matter, resulting in a liquid, or "loose", bowel movement.[*citation needed*]

Acute diarrhea is most commonly due to viral gastroenteritis with rotavirus, which accounts for 40% of cases in children under five.[1] In travelers, however, bacterial infections predominate.[24] Various toxins such as mushroom poisoning and drugs can also cause acute diarrhea.

Chronic diarrhea can be the part of the presentations of a number of chronic medical conditions affecting the intestine. Common causes include ulcerative colitis, Crohn's disease, microscopic colitis, celiac disease, irritable bowel syndrome, and bile acid malabsorption.

Diagnostic approach

The following types of diarrhea may indicate further investigation is needed:

- In infants
- Moderate or severe diarrhea in young children
- Associated with blood
- Continues for more than two days
- Associated non-cramping abdominal pain, fever, weight loss, etc.

- In travelers
- In food handlers, because of the potential to infect others;
- In institutions such as hospitals, child care centers, or geriatric and convalescent homes.

A severity score is used to aid diagnosis in children.[1]

PREVENTION OR CONCLUSION:

SANITATION

Further information: WASH § Health aspects

Numerous studies have shown that improvements in drinking water and sanitation (WASH) lead to decreased risks of diarrhoea.[56] Such improvements might include for example use of water filters, provision of high-quality piped water and sewer connections.

HAND WASHING

Basic sanitation techniques can have a profound effect on the transmission of diarrheal disease. The implementation of hand washing using soap and water, for example, has been experimentally shown to reduce the incidence of disease by approximately 30–48%.

WATER

Given that water contamination is a major means of transmitting diarrheal disease, efforts to provide clean water supply and improved sanitation have the potential to dramatically cut the rate of disease incidence. In fact, it has been proposed that we might expect an 88% reduction in child mortality resulting from diarrheal disease as a result of improved water sanitation and hygiene.[37][65] Similarly, a meta-analysis of numerous studies on improving water supply and sanitation shows a 22–27% reduction in disease incidence, and a 21–30% reduction in mortality rate associated with diarrheal disease.

VACCINATION

Immunization against the pathogens that cause diarrheal disease is a viable prevention strategy, however it does require targeting certain pathogens for vaccination. In the case of Rotavirus, which was responsible for around 6% of diarrheal episodes and 20% of diarrheal disease deaths in the children of developing countries, use of a Rotavirus vaccine in trials in 1985 yielded a slight (2–3%) decrease in total diarrheal disease incidence, while reducing overall mortality by 6–10%.

Rotavirus vaccine decrease the rates of diarrhea in a population.[1][71] New vaccines against rotavirus, *Shigella*, Enterotoxigenic Escherichia coli (ETEC), and cholera are under development, as well as other causes of infectious diarrhea.[*medical citation needed*]

Nutrition

Dietary deficiencies in developing countries can be combated by promoting better eating practices. Zinc supplementation proved successful showing a significant decrease in the incidence of diarrheal disease compared to a control group.[72][73] The majority of the literature suggests that vitamin A supplementation is advantageous in reducing disease incidence.[

Breastfeeding

Breastfeeding practices have been shown to have a dramatic effect on the incidence of diarrheal disease in poor populations. Studies across a number of developing nations have shown that those who receive exclusive breastfeeding during their first 6 months of life are better protected against infection with diarrheal diseases.

Note: I am not responsible for your Grades.

It is just a sample Try yourself to create a Good And Better File.

Thanks….

Remember me in your prayer