

In the name of God

*probiotics and acute GI disorders*

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# *probiotics and acute GI disorders*

## *Probiotics and:*

*1-Acute GE*

*2- AAD*

*3-Infantile colic*

*4- Pouchitis*

# GI Bacteria

*The GI tract is host of a vast variety of bacteria.*

*GI bacteria:*

*1-Good/beneficial/non-pathogenic bacteria (NI flora)*

*2- Bad/pathogenic bacteria*

*Good bacteria and bad bacteria are usually **balanced***

*In a normal case (this is known as **symbiosis**).*

# What is probiotic?

*Probiotics are live, non-pathogenic microorganisms, that when ingested in adequate doses, provide a benefit to the host.*

**They are also known as:**

*good, beneficial and friendly bacteria*

# Probiotics

## 1- Bacteria:

1- Lactobacillus      2- Bifidobacteria

2- yeasts(*Saccharomyces Boulardii*)

# Acute GE, Management

## Recommended treatment:

1- ORT( **ORS, IVT**)

2- Zinc

3- Antibiotics

4- **Probiotics**

# Acute GE and probiotics

Probiotics act against enteric pathogens by:

- 1-Competing for available nutrients
- 2- Competing for binding sites
- 3- Making the gut contents acidic
- 4- Providing a variety of chemicals
- 5- Increasing immune response to invading pathogens
- 6- Synthesize compounds that destroy or inhibit pathogens

# Acute GE and probiotics

Considering the available results of different studies:

- 1- Probiotics can *reduce* the duration and severity of acute infectious GE.
- 2- Probiotics are *safe* and have beneficial effects in shortening the duration and *reducing* the stool frequency in acute GE.
- 3- *No serious*, significant adverse effect with probiotics have been reported .



# Acute GE and probiotics

The magnitude of benefit is affected by:

1- *Strains*

2- *Dose*

3- *Pathogen*

4- *Combination with prebiotics*

5 - *Timing of administration*

## *Note:*

1- *If the decision is made to use probiotics , they should be administered **as soon as possible**.*

2- *The duration of treatment is about **5-7 days***

# Probiotics and AAD

*Several studies have been done on this issue.*

## *Conclusions:*

*1-The pooled analysis suggests that **co-administration** of probiotics with antibiotics reduces the risk of AAD.*

*2- Probiotics are effective for **preventing** AAD.*

*Most of this studies have been done in adults.*

# Infantile colic and probiotics

*Based on available experiences and meta analysis, probiotics are **effective** in treatment of infantile colic.*

# Probiotics and Pouchitis

*Pouchitis is the **most frequent** complication of surgical treatment of UC with ileal pouch anal anastomosis(**IPAA**).*

## ***Symptoms:***

*Increased BM, urgency, hematochezia , abd.pain , fever.*

*Several systemic reviews suggested that probiotics are effective for **preventing** onset and relapse of pouchitis.*

*Probiotic treatment was associated with significant improvement in **quality of life** of pat.s.*

With thanks

