

# TRAVELLER'S DIARRHEA

## PREVENTION

- Good hygiene
- Dietary measures
  - Food should be freshly prepared and served steaming hot
  - Avoid unpeeled fruits & veggies, salads, unpasteurized dairy products, food from street vendors
- Safe beverages: wine, beer, tea, coffee, bottled juices, carbonated bottled drinks, bottled water
  - Do not drink tap water or use it to brush teeth, keep mouth closed in shower, etc
  - Avoid ice cubes in drinks unless prepared from treated/boiled water sources
  - Avoid locally prepared fruit/veggie juices and uncarbonated soft drinks
- Sterilizing water:
  - Boil 5 mins
  - Chemically treat (2% tincture of iodine)
    - 5 drops/L if water is clear, let stand 30 min prior to use
    - 10 drops/L if water is cloudy or cold, increase standing time
  - Chlorine (Sweetwater), ClO<sub>2</sub> (Pristine)
  - Filtration devices

## PROPHYLAXIS

No longer routinely recommended

Short-term ( $\leq 3$  weeks) for high risk groups:

- Immunodeficiency (ex// AIDS, etc)
- Increased risk of consequences of diarrhea (CHF, severe angina, CRF, insulin-dependent DM, IBD)
- Decreased stomach acid, gastric surgery
- Adventure (risk-taking) travellers (remote rural areas, eat food from street vendors, etc)
- Travel frequently to developing countries on business
- Young children, elderly, or debilitated individuals

### ORAL LIQUID VACCINE

Dukoral 2 single doses separated by 7 days  
2<sup>nd</sup> dose must be taken 7 days before departure  
(booster in 3 m if TD protection still required)

- ▶ Most effective for cholera (protection lasts up to 2 years); variable rate for ETEC
- ▶ Immunity develops 1 week after taking 2<sup>nd</sup> dose
- ▶ If > 6 weeks elapse between 1<sup>st</sup> and 2<sup>nd</sup> dose, primary dose should be restarted
- ▶ Consider for all high-risk individuals and high-risk exposures

### BISMUTH SUBSALICYLATE

Pepto-Bismol 524 mg PO QID  
(max 2100 mg/24 h)

- ▶ Not to be taken for > 3 weeks
- ▶ DI: doxy/tetra-cyclines, quinolones (absorption)
- ▶ DI: anticoagulants, probenecid, MTX (safety)
- ▶ QID > BID (protection rates: 50-62%)

### ANTIBIOTICS

Ciprofloxacin 500 mg PO daily  
Norfloxacin 400 mg PO daily  
Ofloxacin 300 mg PO daily  
Levofloxacin 500 mg PO daily

Begin on 1<sup>st</sup> day of arrival, continue for 1-2 days after returning home  
(max 3 weeks total)

- ▶ Not routinely recommended (reserved for persons with risk factors)
- ▶ Protection rate 90-95%

### LIVE LACTOBACILLUS STRAINS

Little evidence probiotics are effective in preventing TD

## TREATMENT

### SUPPORTIVE MEASURES

#### ORAL REHYDRATION

(if commercial ORS not available, can take self-made solutions  
1 tsp salt, 6 tsp sugar to 1 L safe water or  
½ tsp baking soda, 1/8 tsp salt, ½ tsp honey to 1 c fruit juice)

#### FOOD & DIETARY MEASURES

as for acute diarrhea

### SPECIFIC SYMPTOMATIC THERAPIES

#### BISMUTH SUBSALICYLATE

#### LOPERAMIDE

often combined with antibiotics

#### ANTIBIOTICS

Used when: no response to non-specific therapy, presence of blood/mucus in stool, high fever

Ciprofloxacin 750 mg PO x 1 dose or 500 mg PO BID x 3 days

Norfloxacin 800 mg PO x 1 dose or 400 mg PO BID x 3 days

Ofloxacin 400 mg PO x 1 dose or 200-300 mg PO BID x 3 days

Levofloxacin 1000 mg PO x 1 dose or 500 mg PO daily x 3 days

Azithromycin 1000 mg PO x 1 dpse or 500 mg PO BID x 3 days

alternative to quinolones (*resistance (ex/ Thailand), children < 18 yr, pregnancy*)

SMX/TMP or tetracyclines no longer recommended for empiric therapy (resistance)

**IF SX NOT RESOLVED AFTER 24 HR:**  
complete a 3-day course of antibiotics

**IF SX PERSIST OR WOSEN:**  
a physician should be consulted