



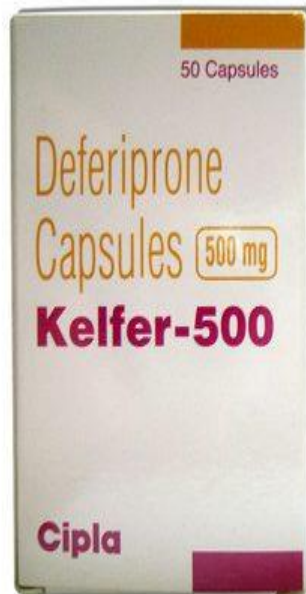
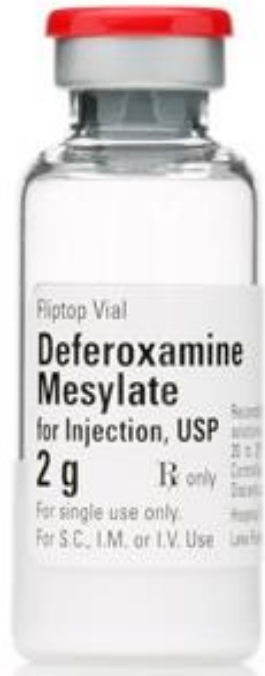
# عوارض ناشی از آهن زدایی و شیوه ی مدیریت آن

نرگس بیگم میربهبهانی

فوق تخصص هماتولوژی آنکولوژی کودکان

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## سه گروه داروی اصلی آهن زدا



\* دفروکسامین (DFO)

\* دفریپرون (DFP)

\* دفرایزیراکس (DFX)

## Deferoxamine (DFO)

30 to 60 mg per kilogram of body weight per day,  
given over a period of 8 to 12 hours for 5 to 7 days per week

## Common adverse events

- lack of adherence to the treatment regimen

## TIF2014

Deferasirox has been licensed as first-line monotherapy for thalassaemia major in over 100 countries worldwide, although the earliest age at which deferasirox qualifies as first-line treatment differs somewhat between the FDA and the EMEA

NEJM2021

Initiate Iron Chelation 2–6 yr of age:

DFO (first-line therapy),

DFX (first-line in U.S., second-line in E.U.)

>6 yr of age: DFO (first-line),

DFP (second-line), DFX (first-line),  
combination

## NTDT

Starting dose : DT 10 mg/kg/day

FCT 7 mg/kg/day

Maximum dose :DT 20mg/kg/day

FCT 14 mg/kg/day

Monitor iron overload:serum ferritin every 3 mo,LIC every 6-12 mo to tailor dose.

Monitor and manage adverse events per local prescribing information



## Deferoxamine (DFO)

- \*ocular and auditory symptoms,
- \* bone-growth retardation,
- \*local reactions,
- \*allergy

Deferoxamine =DFO

Ferritin Regularly (1-2 time yearly)

Audiometry yearly

Electroretinography yearly

Regular monitoring of growth(children) every 3 month

Bun ,creatinin every 6 month

U/A :every 3-6 month


Alt , Ast :monthly (3m),then every 6 month




Defroxamine:

Local skin reaction : Adequate dilution(Not exceed 10%)

Ulceration Attention to sc (Not intradermal)



The deferiprone (DFP)  
given orally three times a day 75 to 100 mg per  
kilogram per day.

- 
- \* Common adverse events
    - \* gastrointestinal symptoms,
    - \* arthralgia,
    - \* agranulocytosis,
    - \* neutropenia



Deferiprone=DFP

CBC (weekly to monthly)

ANC <1500/ml : interrupted treatment

ANC <500/ml ( Agranulocytosis ): stopped treatment

ALT,AST : monthly (6month) then every 6 month

Creatinin : every 6 month

U/A : every 3 month

Electroretinography : yearly

Audiometry : yearly



Monitor and manage adverse  
events:  
per local prescribing information



Defriprone

GI symptoms : Nausea , vomiting , gasteric irritation  
change in appetite(loss or gain)

Management : liquid preparation

Arthropathy : Reduction of dose

NSAID

Stopped treatment

Zinc defficiency :zinc supplementation



## Deferasirox (DFX)

given orally once a day 20 to 40 mg per kilogram per day (dispersible tablet [DT]) or 14 to 28 mg per kilogram per day (film-coated tablet [FCT])

## Common adverse events

- \*gastrointestinal symptoms,
- \* increased creatinine levels
- \*increased hepatic enzyme levels.



Defersirox= DFX

Creatinine weekly (4w), then monthly

Ferritin monthly <500 µg /L : interrupting dosing

U/A ( Proteinuria) monthly to every 3 month

Alt, Ast every 2 weeks or monthly (3 month)

then every 6 months.

LFT>5 fold : interrupting dosing

CBC monthly



Monitor and manage adverse  
events:  
per local prescribing information



Defersirox= DFX

MRI or Echo

T2 < 6ms : interrupted

LVEF <55% ; interruptd

Audiometry : yearly

Electroretionyaxply : yearly



Defersirox= DFX

Skin rashes: if mod to severe : stopped and later restarted at low dose

GI effect : diarrhoea , abdominal pain , nausea , vomiting

Management : administration in the evening or after food , film coated

\*Oral chelators have an established advantage over deferoxamine with respect to adherence to the treatment regimen,

\* New film-coated deferasirox tablet is associated with improved patient-reported outcomes, as compared with the dispersible form.

The choice of iron chelator should be based on

- \*local guidelines,
- \*clinical judgment,
- \*Individual patient's iron overload profile





Successful treatment depends on

- \* Dose adjustment according to ongoing iron intake,

- \*Monitoring,attention to adherence issues,

- \*Management of adverse events.

Continuous parenteral deferoxamine remains the first choice for patients who already have cardiac dysfunction,  
and data on the benefit of deferoxamine combined with deferiprone are also available

