Anterior HSV Disease

First things first: What does HSV stand for in this context?
First things first: What does HSV stand for in this context? Herpes simplex virus
First things first: What does HSV stand for in this context? Herpes simplex virus.

How many ‘types’ of the HSV are there, and what are they named?
First things first: What does HSV stand for in this context? Herpes simplex virus

How many ‘types’ of the HSV are there, and what are they named? There are two--HSV-1, and HSV-2
First things first: What does HSV stand for in this context?
Herpes simplex virus

How many ‘types’ of the HSV are there, and what are they named?
There are two--HSV-1, and HSV-2

Which bodypart(s) does each have a predilection for?
--HSV-1→?
--HSV-2
First things first: What does HSV stand for in this context?
Herpes simplex virus

How many ‘types’ of the HSV are there, and what are they named?
There are two--HSV-1, and HSV-2

Which bodypart(s) does each have a predilection for?
--HSV-1 → ‘Above the waist’: The eyes, and perioral area (ie, ‘cold sores’)
--HSV-2
First things first: What does HSV stand for in this context?
Herpes simplex virus

How many ‘types’ of the HSV are there, and what are they named?
There are two--HSV-1, and HSV-2

Which bodypart(s) does each have a predilection for?
--HSV-1→‘Above the waist’: The eyes, and perioral area (ie, ‘cold sores’)
--HSV-2→?
First things first: What does HSV stand for in this context? Herpes simplex virus

How many ‘types’ of the HSV are there, and what are they named? There are two--HSV-1, and HSV-2

Which bodypart(s) does each have a predilection for? 
--HSV-1→’Above the waist’: The eyes, and perioral area (ie, ‘cold sores’)
--HSV-2→’Below the waist’: The genitalia
**Anterior HSV Disease**

*First things first: What does HSV stand for in this context?*  
Herpes simplex virus

*How many ‘types’ of the HSV are there, and what are they named?*  
There are two--HSV-1, and HSV-2

*Which body part(s) does each have a predilection for?*  
--- HSV-1 \(\rightarrow\) ‘Above the waist’: The eyes, and perioral area (ie, ‘cold sores’)  
--- HSV-2 \(\rightarrow\) ‘Below the waist’: The genitalia

*Predilections aside, can HSV-1 cause genital herpes, and HSV-2 cause ocular/perioral infection?*
First things first: What does HSV stand for in this context? Herpes simplex virus

How many ‘types’ of the HSV are there, and what are they named? There are two--HSV-1, and HSV-2

Which body part(s) does each have a predilection for?
--HSV-1→ ‘Above the waist’: The eyes, and perioral area (ie, ‘cold sores’)
--HSV-2→ ‘Below the waist’: The genitalia

Predilections aside, can HSV-1 cause genital herpes, and HSV-2 cause ocular/perioral infection?
Yes and yes
Anterior HSV Disease

1) ?

2) ?

You should think of anterior HSV eye dz as having two very broad forms. What are they?
Anterior HSV Disease

1) Primary ocular disease

2) Recurrent ocular disease

You should think of anterior HSV eye dz as having two very broad forms. What are they?
Anterior HSV Disease

1) Primary ocular disease

2) Recurrent ocular disease

*Does ‘recurrence’ mean the pt gets re-infected?*
1) Primary ocular disease

2) \textbf{Recurrent} ocular disease

\textit{Does ‘recurrence’ mean the pt gets re-infected?}

No! Remember, herpes virus infection is never cleared--rather, it becomes latent within the host. Thus, recurrence means the virus is \textbf{reactivated}, not re-acquired.
1) Primary ocular disease

2) Recurrent ocular disease

Does ‘recurrence’ mean the pt gets re-infected? No! Remember, herpes virus infection is never cleared—rather, it becomes latent within the host. Thus, recurrence means the virus is reactivated, not re-acquired.

Where in the body do herpesviruses establish their latency?
1) Primary ocular disease

2) Recurrent ocular disease

Does ‘recurrence’ mean the pt gets re-infected?
No! Remember, herpes virus infection is never cleared--rather, it becomes latent within the host. Thus, recurrence means the virus is reactivated, not re-acquired.

*Where in the body do herpesviruses establish their latency?*
Different members of the herpesvirus family take up residence in different cell types. HSV-1 and HSV-2 hole up in sensory neural ganglia.
Anterior HSV Disease

1) Primary ocular disease

2) Recurrent Ocular disease

Does ‘recurrence’ mean the pt gets re-infected?
No! Remember, herpes virus infection is never cleared—rather, it becomes latent within the host. Thus, recurrence means the virus is reactivated, not re-acquired.

Where in the body do herpesviruses establish their latency?
Different members of the herpesvirus family take up residence in different cell types.
HSV-1 and HSV-2 hole up in sensory neural ganglia.

Which sensory ganglion harbors the virions responsible for recurrent ocular dz?
Anterior HSV Disease

1) Primary ocular disease

2) Recurrent ocular disease

Does ‘recurrence’ mean the pt gets re-infected?
No! Remember, herpes virus infection is never cleared--rather, it becomes latent within the host. Thus, recurrence means the virus is reactivated, not re-acquired.

Where in the body do herpesviruses establish their latency?
Different members of the herpesvirus family take up residence in different cell types. HSV-1 and HSV-2 hole up in sensory neural ganglia.

Which sensory ganglion harbors the virions responsible for recurrent ocular dz?
The trigeminal (CN5; ‘stellate’) ganglion
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral

2) Recurrent ocular disease
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis

2) Recurrent ocular disease
Anterior HSV Disease

HSV blepharoconjunctivitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral **blepharoconjunctivitis**
--Presents with lid margin and bulbar signs

2) Recurrent ocular disease
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
Anterior HSV Disease

1) Primary ocular disease
   -- Usually a **unilateral blepharoconjunctivitis**
     -- Presents with lid margin vesicles/ulcers and bulbar conj ulcers

*In what percent of cases does primary HSV present bilaterally?*
Anterior HSV Disease

1) Primary ocular disease
   --Usually a **unilateral blepharoconjunctivitis**
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

*In what percent of cases does primary HSV present bilaterally? ~10%*
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral **blepharoconjunctivitis**
--Presents with lid margin **vesicles/ulcers** and bulbar **conj ulcers**

2) Recurrent ocular disease
a) ?
b) ?

c) ?
d) ?

Four distinct ocular manifestations (think broadly, and anatomically)
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis
   b) Keratitis
   c) Iridocyclitis
   d) Trabeculitis

Four distinct ocular manifestations
(think broadly, and anatomically)
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like
two words
b) Keratitis
c) Iridocyclitis
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
c) Iridocyclitis
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   Does recurrent blepharoconjunctivitis require aggressive treatment?

c) Iridocyclitis

d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis

   *Does recurrent blepharoconjunctivitis require aggressive treatment?*
   Not generally—it tends to be self-limited

   c) Iridocyclitis

   d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   Does recurrent blepharoconjunctivitis require aggressive treatment?
   Not generally—it tends to be self-limited
   
   Under what not ‘generally’ conditions does it not tend to be self-limited, and therefore would require aggressive tx?

c) Iridocyclitis

d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
     *Epithelial*: c/o foreign body sensation. Classic sign: Dendrites
     *Stromal*: Looks like a scar (hazy, with no overlying epithelial defect)
     *Necrotizing*: Looks like an ulcer (suppurative, with an overlying epithelial defect)
     *Endotheliitis* (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
     --Can be granulomatous or non-granulomatous
     --Classic sign: patchy iris transillumination defects
   d) Trabeculitis

Does recurrent blepharoconjunctivitis require aggressive treatment?

Not generally—it tends to be self-limited

Under what *not* ‘generally’ conditions does it *not* tend to be self-limited, and therefore *would* require aggressive tx?

If/when the pt is immunocompromised
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral **blepharoconjunctivitis**
   --Presents with lid margin **vesicles/ulcers** and bulbar **conj ulcers**

2) Recurrent ocular disease
a) **Blepharoconjunctivitis**: Looks like **primary disease**
b) **Keratitis**
   --?
   --?
   --?
   Three specific and distinct keratitis subtypes

c) **Iridocyclitis**

d) **Trabeculitis**
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial
   --Stromal
   --Endotheliitis
Three specific and distinct keratitis subtypes

c) Iridocyclitis

d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral **blepharoconjunctivitis**
      --Presents with lid margin **vesicles/ulcers** and bulbar **conj ulcers**

2) Recurrent ocular disease
   a) **Blepharoconjunctivitis**: Looks like **primary disease**
   b) **Keratitis**
      --**Epithelial**: c/o **three words**. Classic sign:
      --**Stromal**
         --**Endotheliitis**
   c) **Iridocyclitis**
   d) **Trabeculitis**
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal

   --Endotheliitis
   c) Iridocyclitis

   d) Trabeculitis
Anterior HSV Disease

HSV epithelial keratitis
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
   --Endotheliitis
   c) Iridocyclitis
      How do HSV dendrites stain with fluorescein and rose bengal?
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a *unilateral* blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) *Blepharoconjunctivitis:* Looks like primary disease
b) *Keratitis*
   --Epithelial: c/o *foreign body sensation.* Classic sign: **Dendrites**
   --Stromal
   --Endotheliitis
   How do HSV dendrites stain with fluorescein and rose bengal?
The base stains with *fluorescein;* the edges stain with *rose bengal*
c) *Iridocyclitis*
d) *Trabeculitis*
The base stains with fluorescein; the edges stain with rose bengal.
1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal: Looks like a scar (hazy, with no overlying epithelial defect)
   --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects

d) Trabeculitis
   --Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy? Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral **blepharoconjunctivitis**
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) **Blepharoconjunctivitis**: Looks like primary disease
   b) **Keratitis**
      --Epithelial: c/o **foreign body sensation**. Classic sign: **Dendrites**
      --**What is the typical treatment for HSV infectious epitheliopathy?**
         Viroptic 9x/day x 2 weeks, then stop
   c) **Iridocyclitis**
      --Can be granulomatous or non-granulomatous
      --Classic sign: **patchy iris transillumination defects**
   d) **Trabeculitis**
      --Presents with unilateral elevated IOP
Anterior HSV Disease

1) Primary ocular disease
   -- Usually a unilateral blepharoconjunctivitis
   -- Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      -- Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      -- Stromal -- Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      -- Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      -- Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      -- Can be granulomatous or non-granulomatous
      -- Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      -- Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the standard treatment regimen for Zirgan?
One drop 5x/d (compared with 9/day for Viroptic)

Other than its less-onerous dosing schedule, does Zirgan have any advantages over Viroptic?
Yes--it is probably less toxic to the corneal epithelium
Anterior HSV Disease

What is the generic name for Viroptic?

Trifluridine

What is the typical treatment for HSV infectious epitheliopathy?

Viroptic 9x/day x 2 weeks, then stop

c) Iridocyclitis

d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis
      : Looks like primary disease
   b) Keratitis
      -- Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      -- Stromal
      -- Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      -- Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      -- Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      -- Can be granulomatous or non-granulomatous
      -- Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      -- Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the standard treatment regimen for Zirgan?
One drop 5x/d (compared with 9/day for Viroptic)

Other than its less-onerous dosing schedule, does Zirgan have any advantages over Viroptic?
Yes--it is probably less toxic to the corneal epithelium
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis:
   - Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   - Stromal: Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
   - Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   - Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

c) Iridocyclitis
   - Can be granulomatous or non-granulomatous
   - Classic sign: patchy iris transillumination defects

d) Trabeculitis
   - Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)
Anterior HSV Disease

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the standard treatment regimen for Zirgan?
Viroptic 9x/day x 2 weeks, then stop

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

- a) Blepharoconjunctivitis
- b) Keratitis
  - Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  - Stromal: Looks like a scar (hazy, with no overlying epithelial defect)
  - Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  - Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
- c) Iridocyclitis
  - Can be granulomatous or non-granulomatous
  - Classic sign: patchy iris transillumination defects
- d) Trabeculitis
  - Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the standard treatment regimen for Zirgan?
Viroptic 9x/day x 2 weeks, then stop

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

- a) Blepharoconjunctivitis
- b) Keratitis
- c) Iridocyclitis
- d) Trabeculitis
Anterior HSV Disease

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the standard treatment regimen for Zirgan?
One drop 5x/d (compared with 9/day for Viroptic)

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects

d) Trabeculitis
   --Presents with unilateral elevated IOP

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the standard treatment regimen for Zirgan?
One drop 5x/d (compared with 9/day for Viroptic)
Anterior HSV Disease

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the standard treatment regimen for Zirgan?
One drop 5x/d (compared with 9/day for Viroptic)

Other than its less-onerous dosing schedule, does Zirgan have any advantages over Viroptic?

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
   --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
d) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects

d) Trabeculitis
   --Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the standard treatment regimen for Zirgan?
One drop 5x/d (compared with 9/day for Viroptic)

Other than its less-onerous dosing schedule, does Zirgan have any advantages over Viroptic?
Yes--it is probably less toxic to the corneal epithelium
Anterior HSV Disease

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes—ganciclovir gel (Zirgan)

Are there other topical treatments besides Viroptic and Zirgan?
Yes—it is probably less toxic to the corneal epithelium

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

c) Iridocyclitis

d) Trabeculitis
Anterior HSV Disease

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

c) Iridocyclitis--Can be granulomatous or non-granulomatous--Classic sign: patchy iris transillumination defects
d) Trabeculitis--Presents with unilateral elevated IOP

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

Are there other topical treatments besides Viroptic and Zirgan?
Acyclovir ointment is available in Europe, but not the US

Acyclovir ointment is available in Europe, but not the US

Yes--it is probably less toxic to the corneal epithelium

What is the standard treatment regimen for Zirgan?
One drop 5x/d (compared with 9/day for Viroptic)

Other than its less-onerous dosing schedule, does Zirgan have any advantages over Viroptic?
Yes--it is probably less toxic to the corneal epithelium

Are there other topical treatments besides Viroptic and Zirgan?
Acyclovir ointment is available in Europe, but not the US

Anything coming down the therapeutic pipeline?
Far up the pipeline is a class of meds called helicase primase inhibitors
Anterior HSV Disease

1) Primary ocular disease
   -- Usually a unilateral blepharoconjunctivitis
   -- Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis:
      - Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      - Stromal -- Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      - Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      - Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

   c) Iridocyclitis:
      -- Can be granulomatous or non-granulomatous
      -- Classic sign: patchy iris transillumination defects

   d) Trabeculitis:
      -- Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA — it is as effective as topical Viroptic

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes—ganciclovir gel (Zirgan)

Are there other topical treatments besides Viroptic and Zirgan?
Acyclovir ointment is available in Europe, but not the US

Anything coming down the therapeutic pipeline?
Yes—it is probably less toxic to the corneal epithelium
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis--Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal--Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis--Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis--Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing. HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic

What is the generic name for Viroptic?
Trifluridine

Are there other topical treatments available?
Yes--ganciclovir gel (Zirgan)

Are there other topical treatments besides Viroptic and Zirgan?
Acyclovir ointment is available in Europe, but not the US

Anything coming down the therapeutic pipeline?
Far up the pipeline is a class of meds called \textit{helicase primase inhibitors}
Yes--it is probably less toxic to the corneal epithelium

What is the standard treatment regimen for Zirgan?
One drop 5x/d (compared with 9/day for Viroptic)

Other than its less-onerous dosing schedule, does Zirgan have any advantages over Viroptic?
Yes--it is probably less toxic to the corneal epithelium

Are there other topical treatments besides Viroptic and Zirgan?
Acyclovir ointment is available in Europe, but not the US

Anything coming down the therapeutic pipeline?
Far up the pipeline is a class of meds called \textit{helicase primase inhibitors}
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --What is the typical treatment for HSV infectious epitheliopathy?
     Viroptic 9x/day x 2 weeks, then stop
   --What disaster will befall the patient if you fail to prescribe Viroptic?
   c) Iridocyclitis
   d) Trabeculitis

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop
What disaster will befall the patient if you fail to prescribe Viroptic?
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --What is the typical treatment for HSV infectious epitheliopathy?
      Viroptic 9x/day x 2 weeks, then stop
   --What disaster will befall the patient if you fail to prescribe Viroptic?
      Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
c) Iriditis
   d) Trabeculitis
      --Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --What is the typical treatment for HSV infectious epitheliopathy?
        Viroptic 9x/day x 2 weeks, then stop
      --What disaster will befall the patient if you fail to prescribe Viroptic?
        Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
   c) Iridocyclitis
      --Why must you stop Viroptic after 2 weeks?
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --What is the typical treatment for HSV infectious epitheliopathy?
        Viroptic 9x/day x 2 weeks, then stop
      --What disaster will befall the patient if you fail to prescribe Viroptic?
        Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
   c) Iriditis
   d) Trabeculitis
      It is quite toxic to healthy and/or healing epithelium

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites

      What is the typical treatment for HSV infectious epitheliopathy?
      Viroptic 9x/day x 2 weeks, then stop

      What disaster will befall the patient if you fail to prescribe Viroptic?
      Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

   c) Iriditis
      Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

   d) Trabeculitis
      --Presents with unilateral elevated IOP

      Why must you stop Viroptic after 2 weeks?
      It is quite toxic to healthy and/or healing epithelium

      What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --What is the typical treatment for HSV infectious epitheliopathy?
  Viroptic 9x/day x 2 weeks, then stop
  --What disaster will befall the patient if you fail to prescribe Viroptic?
  Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
c) Iriditis
  Why must you stop Viroptic after 2 weeks?
  It is quite toxic to healthy and/or healing epithelium
d) Trabeculitis

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO acyclovir (ACA)
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --What is the typical treatment for HSV infectious epitheliopathy?
     Viroptic 9x/day x 2 weeks, then stop
   --What disaster will befall the patient if you fail to prescribe Viroptic?
     Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
c) Iriditis
   --Why must you stop Viroptic after 2 weeks?
     It is quite toxic to healthy and/or healing epithelium
d) Trabeculitis
   --What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
     PO acyclovir (ACA)
   --What is the dosing schedule for ACA?
     400 mg 5x/d for ~10 days
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
    - What is the typical treatment for HSV infectious epitheliopathy?
      Viroptic 9x/day x 2 weeks, then stop
    - What disaster will befall the patient if you fail to prescribe Viroptic?
      Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
  c) Iriditis
    -- What must you stop Viroptic after 2 weeks?
      It is quite toxic to healthy and/or healing epithelium
  d) Trabeculitis
    -- What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
      PO acyclovir (ACA)

What is the dosing schedule for ACA?
400 mg 5x/d for ~10 days
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral **blepharoconjunctivitis**
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) **Blepharoconjunctivitis**: Looks like primary disease
b) **Keratitis**
   --Epithelial: c/o **foreign body sensation**. Classic sign: **Dendrites**
   --Stromal
     --Epithelial: c/o foreign body sensation. Classic sign: **Dendrites**
     --Stromal
       --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
       --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
       --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

d) **Iridocyclitis**
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects

d) **Trabeculitis**
   --Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

You fail to prescribe Viroptic?
Nothing—HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

Is PO **valacyclovir** effective as well?
Yes, but it has several serious potential side effects

What are these side effects?
--Thrombotic thrombocytopenic purpura
--Hemolytic-uremic syndrome

What is the dosing schedule for **acyclovir (ACA)**?
400 mg 5x/d for ~10 days
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

Is PO valacyclovir effective as well?
Yes, but it has several serious potential side effects

What is the dosing schedule for ACA?
400 mg 5x/d for ~10 days

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO acyclovir (ACA)

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

valacyclovir
PO acyclovir (ACA)
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal: Looks like a scar
      --Necrotizing: Looks like an ulcer
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO acyclovir (ACA)

Is PO valacyclovir effective as well?
Yes, but it has several serious potential side effects

What are these side effects?
--
--

What is the dosing schedule for ACA?
400 mg 5x/d for ~10 days

valacyclovir
PO
valacyclovir (ACA)
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
   --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
   --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO acyclovir (ACA)

Is PO valacyclovir effective as well?
Yes, but it has several serious potential side effects

What are these side effects?
--Thrombotic thrombocytopenic purpura
--Hemolytic-uremic syndrome

PO acyclovir (ACA)

What is the dosing schedule for ACA?
400 mg 5x/d for ~10 days

valacyclovir
valacyclovir
Anterior HSV Disease

1) Primary ocular disease
--Usually a **unilateral blepharoconjunctivitis**
--Presents with lid margin **vesicles/ulcers** and bulbar **conj ulcers**

2) Recurrent ocular disease
a) **Blepharoconjunctivitis**: Looks like primary disease
b) **Keratitis**
   --**Epithelial**: c/o **foreign body sensation**. Classic sign: **Dendrites**
   --What is the typical treatment for HSV infectious epitheliopathy?
     Viroptic 9x/day x 2 weeks, then stop
   c) **Iridocyclitis**: Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) **Trabeculitis**: Presents with unilateral elevated IOP

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing—HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO **acyclovir (ACA)**

Is PO **valacyclovir** effective as well?
Yes, but it has several serious potential side effects

What are these side effects?
--**Thrombotic thrombocytopenic purpura**
--**Hemolytic-uremic syndrome**

What systemic condition predisposes a pt on **valacyclovir** to these side effects?
**AIDS**

What is the dosing schedule for **ACA**?
400 mg 5x/d for ~10 days
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --What is the typical treatment for HSV infectious epitheliopathy?
     Viroptic 9x/day x 2 weeks, then stop

Is PO valacyclovir effective as well?
Yes, but it has several serious potential side effects

What are these side effects?
--Thrombotic thrombocytopenic purpura
--Hemolytic-uremic syndrome

What systemic condition predisposes a pt on valacyclovir to these side effects?
AIDS

What is the dosing schedule for ACA?
400 mg 5x/d for ~10 days
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --What is the typical treatment for HSV infectious epitheliopathy?
   Viroptic 9x/day x 2 weeks, then stop
   What simple, slit-lamp-based maneuver can speed resolution of infectious epitheliopathy?
   Debride the infected epithelium
   Why must you stop Viroptic after 2 weeks?
   It is quite toxic to healthy and/or healing epithelium
   What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
   PO ACA—it is as effective as topical Viroptic
Anterior HSV Disease

1) Primary ocular disease
-- Usually a unilateral blepharoconjunctivitis
-- Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
-- Epithelial: c/o foreign body sensation. Classic sign: Dendrites
-- What is the typical treatment for HSV infectious epitheliopathy?
  Viroptic 9x/day x 2 weeks, then stop
  What simple, slit-lamp-based maneuver can speed resolution of infectious epitheliopathy?
  Debride the infected epithelium
-- Stromal
  Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
  Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --What is the typical treatment for HSV infectious epitheliopathy?
        Viroptic 9x/day x 2 weeks, then stop
      --What disaster will befall the patient if you fail to prescribe Viroptic?
        Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
      c) Iriditis
      d) Trabeculitis

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?

Is it reasonable to treat infectious HSV epitheliopathy with steroids?
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--Epithelial: c/o foreign body sensation. Classic sign: Dendrites

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

Is it reasonable to treat infectious HSV epitheliopathy with steroids?
No!

PO ACA—it is as effective as topical Viroptic
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--- Epithelial: c/o foreign body sensation. Classic sign: Dendrites
--- What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop
--- What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
c) Iridocyclitis
--- Can be granulomatous or non-granulomatous
--- Classic sign: patchy iris transillumination defects

What is the typical treatment for HSV infectious epitheliopathy?
Viroptic 9x/day x 2 weeks, then stop
What disaster will befall the patient if you fail to prescribe Viroptic?
Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks?
It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely?
PO ACA—it is as effective as topical Viroptic

Is it reasonable to treat infectious HSV epitheliopathy with steroids?
No!

What is likely to develop if infectious HSV epitheliopathy is treated with steroids?
Anterior HSV Disease

1) Primary ocular disease
--Usually a *unilateral* blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) *Blepharoconjunctivitis*: Looks like primary disease
b) *Keratitis*
  --*Epithelial*: c/o *foreign body sensation*. Classic sign: *Dendrites*
  --What is the typical treatment for HSV infectious epitheliopathy? Viroptic 9x/day x 2 weeks, then stop
  --What disaster will befall the patient if you fail to prescribe Viroptic? Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course
  c) *Iriditis*: Can be granulomatous or non-granulomatous
     --Classic sign: patchy iris transillumination defects
  d) *Trabeculitis*: Presents with unilateral elevated IOP

---

What is the typical treatment for HSV infectious epitheliopathy? Viroptic 9x/day x 2 weeks, then stop

What disaster will befall the patient if you fail to prescribe Viroptic? Nothing--HSV epitheliopathy is self-limiting; treatment shortens the course

Why must you stop Viroptic after 2 weeks? It is quite toxic to healthy and/or healing epithelium

What alternative antiviral treatment bypasses the risk of epithelial toxicity entirely? PO ACA—it is as effective as topical Viroptic

Is it reasonable to treat infectious HSV epitheliopathy with steroids? No!

What is likely to develop if infectious HSV epitheliopathy is treated with steroids? A geographic corneal ulcer
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
     --?
     --?
   --Endotheliitis
c) Iridocyclitis
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
      --Interstitial
      --Necrotizing
      --Endotheliitis
   Two subtypes of stromal keratitis
   c) Iridocyclitis
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--Epithelial: c/o foreign body sensation. Classic sign: Dendrites
--Stromal
--Interstitial: Looks like a
--Necrotizing
--Endotheliitis
c) Iridocyclitis
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial: Looks like a scar
         --Necrotizing
         --Endotheliitis
c) Iridocyclitis
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing
    --Endotheliitis
c) Iridocyclitis
d) Trabeculitis
Study Guide: Anterior HSV dz

HSV interstitial keratitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral **blepharoconjunctivitis**
   --Presents with lid margin *vesicles/ulcers* and bulbar *conj ulcers*

2) Recurrent ocular disease
a) **Blepharoconjunctivitis**: Looks like primary disease
b) **Keratitis**
   --Epithelial: c/o *foreign body sensation*. Classic sign: **Dendrites**
   --Stromal
      --*Interstitial*: Looks like a **scar** (hazy, with no overlying epithelial defect)
      --*Necrotizing*: Looks like an **
   --**Endotheliitis
c) **Iridocyclitis**
d) **Trabeculitis**
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
     --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     --Necrotizing: Looks like an ulcer
   --Endotheliitis
c) Iridocyclitis
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
    --Endotheliitis
c) Iridocyclitis
d) Trabeculitis
Study Guide: Anterior HSV dz

HSV necrotizing keratitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--Epithelial: c/o foreign body sensation. Classic sign: Dendrites
--Stromal
  --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
  --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
--Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with
  c) Iridocyclitis

d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
   d) Trabeculitis
Study Guide: Anterior HSV dz

HSV endotheliitis/disciform keratitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis

What are the three main complications/sequelae of HSV corneal disease?
d) Trabeculitis
--
--
Anterior HSV Disease

1) Primary ocular disease
-- Usually a unilateral blepharoconjunctivitis
-- Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   -- Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   -- Stromal
      -- Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      -- Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   -- Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis

What are the three main complications/sequelae of HSV corneal disease?
-- Toxic epitheliopathy 2o to Viroptic
-- ulcer
-- ulcer

d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
  What are the three main complications/sequelae of HSV corneal disease?
  --Toxic epitheliopathy 2° to Viroptic
  --Neurotrophic ulcer
  --Metaherpetic ulcer
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
     --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
     --Stromal
       --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
       --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
     --Endothelitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
   d) Trabeculitis

   What are the three main complications?
   --Toxic epitheliopathy 2° to Viroptic
   --Neurotrophic ulcer
   --Metaherpetic ulcer

   What does this mean?
   Keratopathy 2° to decreased sensation
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
     --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
   What are the three main complications?
   --Toxic epitheliopathy 2° to Viroptic
   --Neurotrophic ulcer
   --Metaherpetic ulcer

What does this mean?
Keratopathy 2° to decreased sensation
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
   d) Trabeculitis

   **What are the three main complications/sequelae of HSV corneal disease?**
   --Toxic epitheliopathy 2° to Viroptic
   --Neurotrophic ulcer
   --Metaherpetic ulcer

   **What does this mean?**
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
     --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis

What are the three main complications/sequelae of HSV corneal disease?
--Toxic epitheliopathy 2° to Viroptic
--Neurotrophic ulcer
--Metaherpetic ulcer

What does this mean?
Interstitial keratitis with chronic overlying epi defect
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: Looks like a primary disease
   --Stromal:
     --Intermediate: Looks like a Scar (hazy, with no overlying epithelial defect)
     --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

c) Iridocyclitis

What are the three main complications/sequelae of HSV corneal disease?
--Toxic epitheliopathy 2° to Viroptic
   --Neurotrophic ulcer
   --Metaherpetic ulcer

How can these be differentiated from infectious epitheliopathy?
The edges of infectious HSV ulcers stain with rose bengal; neurotrophic and metaherpetic ulcers do not.
Anterior HSV Disease

1) Primary ocular disease
   --Usually a *unilateral* blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) *Blepharoconjunctivitis*: Looks like primary disease
   b) *Keratitis*
      --Epithelial
      --Stromal
         --Interstitial: Looks like a *scar* (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an *ulcer* (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka *disciform keratitis*): Presents as disc-shaped edematous area with KP
   c) *Iridocyclitis*
   d) *Trabeculitis*

How can these be differentiated from infectious epitheliopathy?
The edges of infectious HSV ulcers stain with *rose bengal*; neurotrophic and metaherpetic ulcers do not.

What are the three main complications/sequelae of HSV corneal disease?
--Toxic epitheliopathy 2° to Viroptic
--Neurotrophic ulcer
--Metaherpetic ulcer
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: Looks like a Scar
   --Stromal: Interstitial: Looks like a Scar: (hazy, with no overlying epithelial defect)
   --Neutrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

c) Iridocyclitis

What are the three main complications/sequelae of HSV corneal disease?
--Toxic epitheliopathy 2o to Viroptic
--Neurotrophic ulcer
--Metaherpetic ulcer

How can these be differentiated from infectious epitheliopathy?
The edges of infectious HSV ulcers stain with rose bengal; neurotrophic and metaherpetic ulcers do not.

Why not?
Recall that rose bengal stains dead and/or devitalized epithelium, as happens when cells are infected.
Cells at the edges of a neurotrophic or metaherpetic ulcer are healthy, so they don’t take the stain.
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conjunctival ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: Not described
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as a disc-shaped edematous area with KP

c) Iridocyclitis
--Can be granulomatous or non-granulomatous
--Classic sign: patchy iris transillumination defects

d) Trabeculitis
--Presents with unilateral elevated IOP

What are the three main complications/sequelae of HSV corneal disease?
--Toxic epitheliopathy 2° to Viroptic
--Neurotrophic ulcer
--Metaherpetic ulcer

How can these be differentiated from infectious epitheliopathy?
The edges of infectious HSV ulcers stain with rose bengal; neurotrophic and metaherpetic ulcers do not.

Why not?
Recall that rose bengal stains dead and/or devitalized epithelium, as happens when cells are infected. Cells at the edges of a neurotrophic or metaherpetic ulcer are healthy, so they don't take the stain.
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral **blepharoconjunctivitis**
  --Presents with lid margin **vesicles/ulcers** and bulbar **conj ulcers**

2) Recurrent ocular disease
a) **Blepharoconjunctivitis**: Looks like **primary disease**
b) **Keratitis**
   --Epithelial: c/o **foreign body sensation**. Classic sign: **Dendrites**
   --Stromal
      --**Interstitial**: Looks like a **scar** (hazy, with no overlying epithelial defect)
      --**Necrotizing**: Looks like an **ulcer** (suppurative, with an overlying epithelial defect)
   --**Endotheliitis** (aka **disciform keratitis**): Presents as **disc**-shaped edematous area with **KP**
c) **Iridocyclitis**
   
   **When performing penetrating keratoplasty for HSV-related corneal disease, is it prudent to use antiviral prophylaxis?**
d) **Trabeculitis**

---

When performing penetrating keratoplasty for HSV-related corneal disease, is it prudent to use antiviral prophylaxis?
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
     --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

c) Iridocyclitis

When performing penetrating keratoplasty for HSV-related corneal disease, is it prudent to use antiviral prophylaxis?

Yes!
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis

When performing penetrating keratoplasty for HSV-related corneal disease, is it prudent to use antiviral prophylaxis?
Yes!

Topical or PO, and why?
Anterior HSV Disease

1) Primary ocular disease
--Usually a *unilateral* blepharoconjunctivitis
 --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) *Blepharoconjunctivitis*: Looks like *primary disease*

b) *Keratitis*
   --Epithelial: c/o *foreign body sensation*. Classic sign: *Dendrites*
   --Stromal
     --*Interstitial*: Looks like a *scar* (hazy, with no overlying epithelial defect)
     --*Necrotizing*: Looks like an *ulcer* (suppurative, with an overlying epithelial defect)
   --*Endotheliitis* (aka *disciform keratitis*): Presents as *disc*-shaped edematous area with *KP*

c) *Iridocyclitiis*

   *When performing penetrating keratoplasty for HSV-related corneal disease, is it prudent to use antiviral prophylaxis?*
   Yes!

   *Topical or PO, and why?*
   PO (Viroptic will tear up the already-compromised epithelium of the graft)
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
  --Can be Granulomatous? Nongranulomatous? Neither? Both?
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
   d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
  --Can be granulomatous or non-granulomatous
  --Classic sign:

d) Trabeculitis
1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

c) Iridocyclitis
  --Can be granulomatous or non-granulomatous
  --Classic sign: patchy iris transillumination defects
d) Trabeculitis
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--Epithelial: c/o foreign body sensation. Classic sign: Dendrites
--Stromal
  --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
  --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
--Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
--Can be granulomatous or non-granulomatous
--Classic sign: patchy iris transillumination defects
d) Trabeculitis

In contrast, what one word describes the appearance of iris transillumination defects after a bout of VZV iridocyclitis?
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
     --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects
d) Trabeculitis

In contrast, what one word describes the appearance of iris transillumination defects after a bout of VZV iridocyclitis? ‘Sectoral’
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
  --Can be granulomatous or non-granulomatous
  --Classic sign: patchy iris transillumination defects
d) Trabeculitis
  --Presents with key exam finding
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral **blepharoconjunctivitis**
  --Presents with lid margin **vesicles/ulcers** and bulbar **conj ulcers**

2) Recurrent ocular disease
   a) **Blepharoconjunctivitis**: Looks like primary disease
   b) **Keratitis**
      --Epithelial: c/o **foreign body sensation**. Classic sign: **Dendrites**
      --Stromal
         --**Interstitial**: Looks like a **scar** (hazy, with no overlying epithelial defect)
         --**Necrotizing**: Looks like an **ulcer** (suppurative, with an overlying epithelial defect)
      --**Endotheliitis** (aka **disciform keratitis**): Presents as disc-shaped edematous area with **KP**
   c) **Iridocyclitis**
      --Can be **granulomatous or non-granulomatous**
      --Classic sign: patchy iris transillumination defects
   d) **Trabeculitis**
      --Presents with **unilateral elevated IOP**
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?

--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects
d) Trabeculitis
   --Presents with unilateral elevated IOP
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
     --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
     --Stromal
       --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
       --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
     --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
     --Can be granulomatous or non-granulomatous
     --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
     --Presents with unilateral elevated IOP
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      - **Epithelial** c/o foreign body sensation. Classic sign: Dendrites
      - Keratitis Epithelial: Presents as disc-shaped edematous area with KP
      - Keratitis Stromal/Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      - Keratitis Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      - Keratitis Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
      - Keratitis Epithelial
   c) Iridocyclitis
      - Can be granulomatous or non-granulomatous
      - Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      - Presents with unilateral elevated IOP

The HEDS examined whether PO acyclovir (added to a Viroptic drops regimen) reduced the risk of later developing HSV stromal keratitis and/or iritis after an episode of HSV epithelial keratitis. Did it? No.
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis:
   Epithelial c/o foreign body sensation. Classic sign: Dendrites
   The HEDS examined whether PO acyclovir (added to a Viroptic drops regimen) reduced the risk of later developing HSV stromal keratitis and/or iritis after an episode of HSV epithelial keratitis. Did it? No. A short course of PO acyclovir did nothing to reduce the risk of future stromal keratitis or iritis.
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

---Usually a unilateral blepharoconjunctivitis
  ---Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body
      --Stromal
        --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
        --Necrotizing
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

Prior to the HEDS, the use of topical steroids in the management of HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial?
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?

The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  --Endotheliitis (aka disciform keratitis)
    --Presents as disc-shaped edematous area with KP

c) Iridocyclitis
  --Can be granulomatous or non-granulomatous
  --Classic sign: patchy iris transillumination defects

d) Trabeculitis
  --Presents with unilateral elevated IOP

Prior to the HEDS, the use of topical steroids in the management of HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial? Sort of. While topical steroids decreased inflammation and shortened the duration of stromal keratitis, vision at the six-month mark was the same in the treatment and placebo groups.
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?

The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects
d) Trabeculitis
   --Presents with unilateral elevated IOP

Prior to the HEDS, the use of topical steroids in the management of HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial? Sort of. While topical steroids decreased inflammation and shortened the duration of stromal keratitis, vision at the six-month mark was the same in the treatment and placebo groups.

So should topical steroids be used in HSV stromal keratitis?
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial: Looks like a scar
           --Necrotizing: Looks like an ulcer
           --Endotheliitis (aka disciform keratitis)
             Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

Prior to the HEDS, the use of topical steroids in the management of HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial? Sort of. While topical steroids decreased inflammation and shortened the duration of stromal keratitis, vision at the six-month mark was the same in the treatment and placebo groups.

So should topical steroids be used in HSV stromal keratitis? Most authorities say yes (in conjunction with Viroptic)
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
      --Interstitial:Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing
         --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects
d) Trabeculitis

Prior to the HEDS, the use of topical steroids in the management of HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial? Sort of. While topical steroids decreased inflammation and shortened the duration of stromal keratitis, vision at the six-month mark was the same in the treatment and placebo groups.

So should topical steroids be used in HSV stromal keratitis? Most authorities say yes (in conjunction with Viroptic)

What is the role of the antiviral in the treatment of HSV-related stromal keratitis?
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? 
The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
  --Can be granulomatous or non-granulomatous
  --Classic sign: patchy iris transillumination defects
d) Trabeculitis
  --Presents with unilateral elevated IOP

Prior to the HEDS, the use of topical steroids in the management of HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial?
Sort of. While topical steroids decreased inflammation and shortened the duration of stromal keratitis, vision at the six-month mark was the same in the treatment and placebo groups.
So should topical steroids be used in HSV stromal keratitis?
Most authorities say yes (in conjunction with Viroptic)

What is the role of the antiviral in the treatment of HSV-related stromal keratitis?
Purely prophylactic—to suppress a possible steroid-induced eruption of infectious epitheliopathy
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

---Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

Some authorities opt for PO acyclovir instead of Viroptic in necrotizing stromal keratitis—why?

b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
     --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     --Necrotizing
     --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial? Sort of. While topical steroids decreased inflammation and shortened the duration of stromal keratitis, vision at the six-month mark was the same in the treatment and placebo groups.

So should topical steroids be used in HSV stromal keratitis? Most authorities say yes (PO acyclovir in conjunction with Viroptic).

What is the role of the antiviral in the treatment of HSV-related stromal keratitis? Purely prophylactic—to suppress a possible steroid-induced eruption of infectious epitheliopathy
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis:
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal:
     --Interstitial:
       - Looks like a scar (hazy, with no overlying epithelial defect)
     --Necrotizing:
       - Looks like an ulcer (suppurative, with an overlying epithelial defect)
     --Endotheliitis (aka disciform keratitis):
       - Presents as disc-shaped edematous area with KP

c) Iridocyclitis
--Can be granulomatous or non-granulomatous
--Classic sign: patchy iris transillumination defects

d) Trabeculitis
--Presents with unilateral elevated IOP

Prior to the HEDS, the use of topical steroids in the management of HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial? Sort of. While topical steroids decreased inflammation and shortened the duration of stromal keratitis, vision at the six-month mark was the same in the treatment and placebo groups.

So should topical steroids be used in HSV stromal keratitis? Most authorities say yes (in conjunction with Viroptic).

What is the role of the antiviral in the treatment of HSV-related stromal keratitis? Purely prophylactic—to suppress a possible steroid-induced eruption of infectious epitheliopathy.

Some authorities opt for PO acyclovir instead of Viroptic in necrotizing stromal keratitis—why? Recall that necrotizing stromal keratitis includes an epithelial defect. The Viroptic will interfere with healing epithelium, and will incur damage in uninfected cells to boot.

HSV stromal keratitis was controversial. A portion of the HEDS was a placebo-controlled evaluation of this issue. Were steroids beneficial? Sort of. While topical steroids decreased inflammation and shortened the duration of stromal keratitis, vision at the six-month mark was the same in the treatment and placebo groups.

So should topical steroids be used in HSV stromal keratitis? Most authorities say yes (in conjunction with Viroptic).

What is the role of the antiviral in the treatment of HSV-related stromal keratitis? Purely prophylactic—to suppress a possible steroid-induced eruption of infectious epitheliopathy.
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease

a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--Epithelial: c/o foreign body sensation. Classic sign: Dendrites
--Stromal
  --Interstitial
  --Necrotizing
--Endotheliitis (aka disciform keratitis)

In addition to evaluating topical steroids, the HEDS looked also at the role of PO acyclovir in managing HSV stromal keratitis. A portion of the HEDS was a placebo-controlled evaluation of this issue. Was it beneficial?

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease

a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--Epithelial: c/o foreign body sensation. Classic sign: Dendrites
--Stromal
  --Interstitial
  --Necrotizing
--Endotheliitis (aka disciform keratitis)

c) Iridocyclitis
--Can be granulomatous or non-granulomatous
--Classic sign: patchy iris transillumination defects
d) Trabeculitis
--Presents with unilateral elevated IOP
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

In addition to evaluating topical steroids, the HEDS looked also at the role of PO acyclovir in managing HSV stromal keratitis. A portion of the HEDS was a placebo-controlled evaluation of this issue. Was it beneficial? No. When added to a regimen of topical steroids and Viroptic, PO acyclovir produced no benefit, with the possible exception of necrotizing keratitis.
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
  --Endotheliitis (aka Disciform keratitis): Presents as disc-shaped edematous area with KP

c) Iridocyclitis
  --Can be granulomatous or non-granulomatous
  --Classic sign: patchy iris transillumination defects

d) Trabeculitis
  --Presents with unilateral elevated IOP

In addition to evaluating topical steroids, the HEDS looked also at the role of PO acyclovir in managing HSV stromal keratitis. A portion of the HEDS was a placebo-controlled evaluation of this issue. Was it beneficial? No. When added to a regimen of topical steroids and Viroptic, PO acyclovir produced no benefit, with the possible exception of necrotizing keratitis.
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal: c/o: interstitial keratitis, classic sign: Dendrites, possible exception of necrotizing keratitis.
    --Interstitial
    --Necrotizing
  --Endotheliitis
  In addition to evaluating topical steroids, the HEDS looked also at the role of PO acyclovir in managing HSV stromal keratitis. A portion of the HEDS was a placebo-controlled evaluation of this issue. Was it beneficial? No. When added to a regimen of topical steroids and Viroptic, PO acyclovir produced no benefit, with the possible exception of necrotizing keratitis.

c) Iridocyclitis
  --Can be granulomatous or non-granulomatous
  --Classic sign: patchy iris transillumination defects

d) Trabeculitis
  --Present with unilateral edema

‘Possible’? What’s up with that? Was PO acyclovir beneficial in HSV-related stromal necrotizing keratitis, or not?
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
--Epithelial: c/o foreign body sensation. Classic sign: Dendrites
--Stromal
---Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
---Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
--Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
--Can be granulomatous or non-granulomatous
--Classic sign: patchy iris transillumination defects
d) Trabeculitis
--Presents with unilateral elevated IOP

In addition to evaluating topical steroids, the HEDS looked also at the role of PO acyclovir in managing HSV stromal keratitis. A portion of the HEDS was a placebo-controlled evaluation of this issue. Was it beneficial? No. When added to a regimen of topical steroids and Viroptic, PO acyclovir produced no benefit, with the possible exception of necrotizing keratitis.

‘Possible’? What’s up with that? Was PO acyclovir beneficial in HSV-related stromal necrotizing keratitis, or not? Unclear. The HEDS data were suggestive of a beneficial role, but the N was too small to reach statistical significance.
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
    --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis

According to the HEDS, what is the role of antivirals in the treatment of HSV-related endotheliitis?
Anterior HSV Disease

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects

According to the HEDS, what is the role of antivirals in the treatment of HSV-related endotheliitis?
This is controversial. A subset analysis was not done, but many researchers felt the antivirals were useful in a treatment sense, not just prophylactically.

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
  --Stromal
    --Interstitial
    --Necrotizing
  --Endotheliitis
  --Can be granulomatous
  --Classic sign: patchy iris transillumination defects
d) Trabeculitis
  --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in HSV iridocyclitis in conjunction with topical steroids. A portion of the HEDS was a placebo-controlled evaluation of this issue. Was it beneficial?

Most authorities say yes
Anterior HSV Disease

**In the context of ocular HSV dz, what does the acronym HEDS stand for?**
The Herpetic Eye Disease Study

--Usually a **unilateral blepharoconjunctivitis**
  --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) **Blepharoconjunctivitis**: Looks like primary disease
b) **Keratitis**
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
      --Interstitial: c/o foreign body sensation. Classic sign: Dendrites
      --Necrotizing
      --Endotheliitis
   --Stromal
   --Necrotizing
   --Endotheliitis

**The HEDS looked also at the role of PO acyclovir in HSV iridocyclitis in conjunction with topical steroids. A portion of the HEDS was a placebo-controlled evaluation of this issue. Was it beneficial?**
Unclear. A positive trend in the data was noted, but the number of cases was too small to reach statistical significance.
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
     --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial:
         --Necrotizing:
      --Endotheliitis
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in HSV iridocyclitis in conjunction with topical steroids. A portion of the HEDS was a placebo-controlled evaluation of this issue. Was it beneficial?
Unclear. A positive trend in the data was noted, but the number of cases was too small to reach statistical significance.

Should PO acyclovir be used in HSV-related iridocyclitis?
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

1) Primary ocular disease
   --Usually a unilateral 
   blepharoconjunctivitis
   --Presents with lid margin 
   vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o 
      foreign body sensation. Classic sign: Dendrites
      --Stromal
      --Interstitial:
      --Necrotizing
      --Endotheliitis
   c) Iridocyclitis
      --Can be granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in HSV iridocyclitis 
in conjunction with topical steroids. A portion of the HEDS was a placebo-
controlled evaluation of this issue. Was it beneficial?
Unclear. A positive trend in the data was noted, but the number of cases 
was too small to reach statistical significance.

Should PO acyclovir be used in HSV-related iridocyclitis?
Most authorities say yes
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?

The Herpetic Eye Disease Study

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
No one knows for sure
Anterior HSV Disease

**In the context of ocular HSV dz, what does the acronym HEDS stand for?**

The Herpetic Eye Disease Study

---Usually a **unilateral** blepharoconjunctivitis
---Presents with lid margin vesicles/ulcers

2) **Recurrent ocular disease**
   a) **Blepharoconjunctivitis**: Looks like primary disease
   b) **Keratitis**
      -- **Epithelial**: c/o foreign body sensation
      -- **Stromal**
         -- **Interstitial**: Looks like a **scar** (hazy, with no overlying epithelial defect)
         -- **Necrotizing**: Looks like an **ulcer** (suppurative, with an overlying epithelial defect)
      -- **Endotheliitis** (aka **disciform keratitis**): Presents as disc-shaped edematous area with KP
   c) **Iridocyclitis**
      -- Can be **granulomatous** or **non-granulomatous**
      -- Classic sign: patchy iris transillumination defects
   d) **Trabeculitis**
      -- Presents with **unilateral elevated IOP**

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

**Who was enrolled?**

Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

**How much acyclovir did they receive, and for how long?**

400 mg PO bid (or placebo) for one year

**Was it beneficial?**

Yes--the rate of recurrent HSV disease was cut by ~50%

**Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?**

No

**How long should prophylactic PO acyclovir be continued?**

No one knows for sure
Anterior HSV Disease

**In the context of ocular HSV dz, what does the acronym HEDS stand for?**

The Herpetic Eye Disease Study

--- Usually a unilateral blepharoconjunctivitis
--- Presents with lid margin vesicles/ulcers

2) **Recurrent ocular disease**

a) **Blepharoconjunctivitis:** Looks like primary disease

b) **Keratitis**
   -- Epithelial: c/o foreign body sensation
   -- Stromal
     -- Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     -- Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
     -- Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

c) **Iridocyclitis**
   -- Can be granulomatous or non-granulomatous
   -- Classic sign: patchy iris transillumination defects

d) **Trabeculitis**
   -- Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

Was it beneficial?
Yes—the rate of recurrent HSV disease was cut by ~50%.

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
No one knows for sure.
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?

The Herpetic Eye Disease Study

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
No one knows for sure
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation
   --Stromal
     --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects
d) Trabeculitis
   --Presents with unilateral elevated IOP

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
No one knows for sure
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?

The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?

Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
No one knows for sure
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

b) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects

c) Trabeculitis
   --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by 50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
No one knows for sure

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects
d) Trabeculitis
   --Presents with unilateral elevated IOP

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

One subpopulation of HSV pts benefited in particular. Which one?
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?

**The Herpetic Eye Disease Study**

1) Primary ocular disease
   -- Usually a unilateral blepharoconjunctivitis
   -- Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   -- Epithelial: c/o foreign body sensation
   -- Stromal
     -- Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
     -- Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
     -- Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
   -- Can be granulomatous or non-granulomatous
   -- Classic sign: patchy iris transillumination defects

d) Trabeculitis
   -- Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
No one knows for sure

One subpopulation of HSV pts benefited in particular. Which one?
Those with a hx of two words

In the context of ocular HSV dz, what does the acronym HEDS stand for?
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?

The Herpetic Eye Disease Study

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
   --Epithelial: c/o foreign body sensation
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing:Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
No one knows for sure

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

One subpopulation of HSV pts benefited in particular. Which one?
Those with a hx of multiple recurrences
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? 
The Herpetic Eye Disease Study

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP

b) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects

d) Trabeculitis
   --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
Anterior HSV Disease

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conjunctival ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
  --Epithelial: c/o foreign body sensation
  --Stromal
    --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
    --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
    --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
  --Can be granulomatous or non-granulomatous
  --Classic sign: patchy iris transillumination defects
d) Trabeculitis
  --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for? 
The Herpetic Eye Disease Study

1) Primary ocular disease
--Usually a unilateral blepharoconjunctivitis
--Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
a) Blepharoconjunctivitis: Looks like primary disease
b) Keratitis
   --Epithelial: c/o foreign body sensation
   --Stromal
      --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
      --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
   --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
c) Iridocyclitis
   --Can be granulomatous or non-granulomatous
   --Classic sign: patchy iris transillumination defects
d) Trabeculitis
   --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
If a hx of multiple recurrences is present--for life
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

1) Primary ocular disease
   --Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
If a hx of multiple recurrences is present--for life?

What if the pt has no hx of recurrences--how long should s/he be prophylaxed?

In the context of ocular HSV dz, what does the acronym HEDS stand for? The Herpetic Eye Disease Study

--Usually a unilateral blepharoconjunctivitis
   --Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      --Epithelial: c/o foreign body sensation. Classic sign: Dendrites
      --Stromal
         --Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         --Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      --Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      --Can be granulomatous or non-granulomatous
      --Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      --Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
If a hx of multiple recurrences is present--for life?

What if the pt has no hx of recurrences--how long should s/he be prophylaxed?
Anterior HSV Disease

1) Primary ocular disease
   -- Usually a unilateral blepharoconjunctivitis
   -- Presents with lid margin vesicles/ulcers and bulbar conj ulcers

2) Recurrent ocular disease
   a) Blepharoconjunctivitis: Looks like primary disease
   b) Keratitis
      -- Epithelial: c/o foreign body sensation
      -- Stromal
         -- Interstitial: Looks like a scar (hazy, with no overlying epithelial defect)
         -- Necrotizing: Looks like an ulcer (suppurative, with an overlying epithelial defect)
      -- Endotheliitis (aka disciform keratitis): Presents as disc-shaped edematous area with KP
   c) Iridocyclitis
      -- Can be granulomatous or non-granulomatous
      -- Classic sign: patchy iris transillumination defects
   d) Trabeculitis
      -- Presents with unilateral elevated IOP

The HEDS looked also at the role of PO acyclovir in preventing recurrent HSV eye disease. A portion of the HEDS was a placebo-controlled evaluation of this issue.

Who was enrolled?
Pts with a history of HSV eye disease, but without active disease at the time of enrollment. N was ~700.

How much acyclovir did they receive, and for how long?
400 mg PO bid (or placebo) for one year

Was it beneficial?
Yes--the rate of recurrent HSV disease was cut by ~50%

Was there a rebound effect, ie, an increased rate of recurrent HSV dz after cessation of acyclovir therapy?
No

How long should prophylactic PO acyclovir be continued?
If a hx of multiple recurrences is present--for life?

What if the pt has no hx of recurrences--how long should s/he be prophylaxed?
The HEDS did not provide an unambiguous answer to this
Anterior HSV Disease

In the context of ocular HSV dz, what does the acronym HEDS stand for?
The Herpetic Eye Disease Study

--- Usually a unilateral blepharoconjunctivitis
--- Presents with lid margin vesicles/ulcers and bulbar conj ulcers

HEDS tl;dr

The main contribution of the HEDS to clinical ophthalmology is the clarity it provided regarding the best way to manage stromal keratitis. The key takeaways from the HEDS are as follows:

--- Topical steroids (in conjunction with a prophylactic antiviral) are an effective tx;
--- Prophylaxis w/ oral acyclovir reduces the recurrence rate and preserves vision; and
--- In pts with a hx of multiple recurrences, lifelong prophylaxis should be pursued.

c) Iridocyclitis
--- Can be granulomatous or non-granulomatous
--- Classic sign: patchy iris transillumination defects

d) Trabeculitis
--- Presents with unilateral elevated IOP