Scenarios in the management of HIV in pregnancy

SCENARIO

Gestation at presentation: Attending pre-conception on antiretroviral therapy			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
Virally suppressed throughout pregnancy Continue PCP prophylaxis if CD4 <200		<50	In general continue HAART Substituting efavirenz for alternative may not be of benefit depending on gestational age when presents	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Continue	Await SOL	ZDV x 4/52 if ROM <12hrs
Failing therapy anytime Continue PCP prophylaxis if CD4 <200		>50	Optimise HAART with guidance of GRT and previous ART history	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Case by case	ELCS @39/40 if VL >1000 cpm at 36/40 Await SOL if VL <1000 cpm at 36/40	Case by case

SCENARIOs continued

Gestation at presentation: <24/40			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
Because of ↓ baseline CD4, mother requires HAART and PCP prophylaxis for own health	<200	regardless of HIV VL	Await GRT before commencing HAART Commence PCP prophylaxis ASAP HAART to commence ASAP after 1st trimester	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped In all scenarios If for ELCS start IV ZDV 4 hours prior to delivery	Continue	Await SOL if maternal VL <1000 @ 36/40	ZDV X 4/52 if maternal VL <1000 @36/40 +ROM <12hrs
						ELCS @ 39/40 if maternal VL >1000 @ 36/40	Triple ART x 4/52 if maternal VL >1000 @36/40 + ROM >12hrs

SCENARIOS continued

Gestation at presentation: <24/40			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
Mother requires treatment for her own health	>200 but <350 x 10^6/L	regardless of HIV VL	Await GRT before commencing HAART ASAP after 1st trimester	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Continue	ELCS @ 39/40 if maternal VL >1000 @ 36/40	Triple ART x 4/52 if maternal VL >1000 @36/40 + ROM >12hrs
CD4 attributed to physiological changes of pregnancy		<5000	Await GRT before commencing Rx at 20-24/40 May opt for zidovudine monotherapy plus ELCS or HAART plus SVD		discontinue post-partum and see for GRT at ~6 weeks	Await SOL if maternal VL <1000 @ 36/40	ZDV X 4/52 if maternal VL <1000 @36/40 +ROM <12hrs or ZDV mono and ELCS
		>5000	Await GRT before commencing HAART at 20-24/40			ELCS @39/40 if ZDV monoRx	

SCENARIOS continued

Gestation at presentation: <24/40			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
Mother requires Rx to reduce vertical transmission of HIV to infant but does not require Rx for her own health.	>350	<5000	Await GRT before commencing Rx at 20-24/40 May opt for zidovudine monotherapy and ELCS or HAART plus SVD	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	discontinue post-partum and see for GRT at ~6 weeks	ELCS @39/40 if ZDV monoRx	ZDV x 4/52
		>5000	Await GRT before commencing HAART at 20-24/40			Await SOL if maternal VL <1000 @ 36/40	ZDV X 4/52 if maternal VL <1000 @36/40 + ROM <12hrs
						ELCS @ 39/40 if maternal VL >1000 @ 36/40	Triple ART x 4/52 if maternal VL >1000 @36/40 +/or ROM >12hrs

SCENARIOS continued

Gestation at presentation: >24/40			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
Because of ↓ baseline CD4, mother requires Rx and PCP prophylaxis for own health	<200	regardless of HIV VL	GRT Commence PCP prophylaxis asap HAART to commence ASAP (depending on gestation at presentation may commence before resistance results available, consider nevirapine especially if very late presentation)	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	continue on triple ART	Await SOL if maternal VL <1000 @36/40 and ≥4/52 of Rx	ZDV x 4/52 if mother on Rx for ≥4/52 with VL <1000 + ROM <12hrs
						ELCS @ 39/40 if maternal VL >1000 @ 36/40 or ≤4/52 Rx	Triple ART x 4/52 if mother on Rx. ≤4/52 or VL >1000cpm @36/40 +/or ROM >12hrs
Mother requires treatment for her own health	>200 but < 350	regardless of HIV VL	GRT HAART to commence ASAP (depending on gestation at presentation may commence before resistance results available)	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Continue	Await SOL if maternal VL <1000 @36/40 and ≥4/52 of Rx	ZDV x 4/52 if mother on Rx. for ≥4/52 with VL <1000 + ROM <12hrs

SCENARIOS continued

Gestation at presentation: >24/40			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
CD4 attributed to physiological changes of pregnancy	>200 but < 350		GRT HAART to commence ASAP (depending on gestation at presentation may commence before resistance results available)	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	discontinue post-partum and see for GRT at ~6 weeks	ELCS @ 39/40 if maternal VL >1000 @ 36/40 or ≤4/52 Rx	Triple ART if mother on Rx ≤4/52 or VL >1000cpm @36/40 +/or ROM >12hrs
Mother requires Rx to reduce vertical transmission of HIV to infant but does not require Rx for her own	>350	regardless of HIV VL	GRT HAART to commence ASAP (depending on gestation at presentation may commence before resistance results available)	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	discontinue post-partum and see for GRT at ~6 weeks	Await SOL if maternal VL <1000 @36/40 and ≥4/52 of Rx	ZDV x 4/52 if mother on Rx for ≥4/52 with VL <1000 + ROM <12hrs
						ELCS @ 39/40 if maternal VL >1000 @ 36/40 or ≤4/52 Rx	Triple ARTx 4/52 if mother on Rx. ≤4/52 or VL >1000cpm @36/40 +/or ROM >12hrs

SCENARIOS continued

Gestation at presentation: Premature labour on effective HAART			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
<34/40		<50	Steroids Consider tocolysis Continue HAART	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Continue	Consider CS after steroids	Triple ART x 4/52 where possible if ROM >12 hours
>34/40			Continue HAART	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Continue	Consider CS if delivery not imminent	Triple ART x 4/52 where possible if ROM >12 hours

SCENARIOS continued

Gestation at presentation: Premature labour failing HAART or not on HAART			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
<34/40		>50	GRT Steroids Consider tocolysis Consider sdNVP if CD4 >250 plus PI based HAART Consider NVP based regimen if CD4 <250	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Continue if indicated for maternal health Discontinue if not indicated for maternal health. Staggered stop if NVP based. GRT at ~6 weeks	Consider CS after steroids	Triple ART x 4/52where possible
>34/40			GRT Consider sdNVP if CD4 >250 plus PI based HAART Consider NVP based regimen if CD4 <250			Consider CS if delivery not imminent	

SCENARIOS continued

Gestation at presentation: Prelabour ruptured membranes at term			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
On effective HAART		<50	Continue HAART	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Continue	Expedite delivery, aim for shortest duration of ROM	ZDV x 4/52 if ROM <12 hours Triple ART x 4/52 if ROM >12 hours
Failing HAART or not on HAART		>50	GRT Consider sdNVP if CD4 >250 plus PI based HAART Consider NVP based regimen if CD4 <250		Continue if indicated for maternal health Discontinue if not indicated for maternal health. Staggered stop if NVP based. GRT at ~6 weeks		Triple ART x 4/52

SCENARIOS continued

Gestation at presentation: Prelabour ruptured membranes pre term			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
On effective HAART <34/40			Steroids Continue HAART Urgent VL Consider sdNVP to mother to pre load infant	IV ZDV 2mg/kg loading over 1 hour then 1mg/kg until cord is clamped	Continue if on effective HAART Optimise HAART if failing therapy	<34/40 consider CS once steroids effective >34/40 expedite delivery aiming for shortest duration of ROM	Triple ART where possible if ROM >12 hours or mother on failing regimen
On effective HAART >34/40			Continue HAART				
Failing HAART or not on HAART <34/40			GRT Steroids Consider sdNVP if CD4 >250 plus PI based HAART Consider NVP based regimen if CD4 <250				
Failing HAART or not on HAART >34/40			Consider sdNVP if CD4 >250 plus PI based HAART Consider NVP based regimen if CD4 <250				

SCENARIOS continued

Gestation at presentation: Diagnosed in labour			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
				As above Consider sdNVP	Urgent confirmation of HIV status Assessment at adult HIV service post partum	Expedite delivery	Triple ART where possible and urgent confirmation of maternal HIV

SCENARIO

Gestation at presentation: Diagnosed post partum			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
					Assessment at adult HIV service post partum		Triple ART where possible

SCENARIOS continued

Gestation at presentation: Refusing interventions to reduce MTCT			**RECOMMENDATIONS**				
Clinical	**CD4**	**HIV VL**	**Antepartum**	**Intrapartum or prior to CS**	**Postpartum mother**	**Mode of delivery**	**Postpartum infant**
				Offer IV zidovudine and consider sdNVP	Offer adult HIV service assessment	Offer ELCS	Triple ART, infant to be made ward of court if required

ART: Antiretroviral therapy
ELCS: Elective caesarean section
SOL: Spontaneous onset of labour
VL: viral load

HIV VL measured in copies per ml
GRT: genotypic resistance testing
Rx: therapy
ZDV: Zidovudine or AZT or Retrovir

C.S: Caesarean Section
NVP: Nevirapine
Triple ART to baby = ZDV + 3TC x 4/52 + stat NVP
CD4 units = x 10^6/L