Clinical Guidance

Rheumatological Disease in Pregnancy

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Contents

This guideline aims to provide clinicians caring for women with Rheumatological Disease in pregnancy with a standardised guide to aid investigations and management from the preconception period, during pregnancy and postpartum.

This guideline is aimed at obstetricians, GP's and midwives caring for women with Rheumatological Disease in pregnancy. This guideline does not cover the detailed management of specific conditions or complications.

RHEUMATOLOGICAL CONDITIONS GUIDELINE

Conditions that require maternal medicine input

Connective Tissue Disease
• Systemic Lupus Erythematous (SLE) • Systemic sclerosis or systemic scleroderma • Sjogren's Syndrome • Antiphospholipid Syndrome
Seronegative Spondylarthritis
• Ankylosing Spondylitis • Psoriatic arthritis • Reactive arthritis • Inflammatory Bowel disease associated arthropathy.
Vasculitis
• Large vessel vasculitis • ANCA positive vasculitis • Other forms of systemic vasculitis
Rheumatoid Arthritis
Others
• Collagen vascular disorders: • Hypermobility spectrum disorders • Ehlers Danlos syndromes • Behcet's syndrome.

NB. This is not an exhaustive list, please contact the relevant maternal medicine teams for further advice if uncertain.

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Rheumatological disease		
Category A Local expertise	**Category B Review, advice and guidance from Maternal medicine centre**	**Category C Care led by Maternal. medicine centre**
Uncomplicated[1] rheumatoid arthritis	Rheumatological disease requiring biologic therapy	Active lupus nephritis (see Kidney Pathway)
Uncomplicated[2] seronegative arthritis: • Ankylosing spondylitis • Psoriatic arthritis • Reactive arthritis • IBD related arthritis	Rheumatological not controlled on current treatment	Large and medium vessel vasculitis
Uncomplicated[3] connective tissue disease: • Lupus • Scleroderma (restricted disease) • Sjogren's	Rheumatological disease with restrictive lung disease and FVC >50% (see	Rheumatological disease with restrictive lung disease and FVC ≤50%
Osteoarthritis	Rheumatological disease with kidney involvement (see Kidney Pathway)	New small vessel vasculitis or small vessel vasculitis on immunosuppression
Obstetric antiphospholipid syndrome (see Haematology Pathway)	Thrombotic antiphospholipid syndrome (see Haematology Pathway)	Vascular Ehlers Danlos
Hypermobile Ehlers Danlos (type III)	Other Ehlers Danlos syndromes	Scleroderma renal crisis
	Diffuse scleroderma	Antisynthetas syndrome
	Small vessel vasculitis in remission, no longer on treatment	
	Polymyositis-dermatomyositis	
	Behcet's syndrome	

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Pre-pregnancy counselling

Pre-conception counselling should be done either by maternal medicine team or Rheumatologist with special interest in pregnancy.
1. **Assess disease history**: activity, flare frequency, severity, previous pregnancies / puerperium
2. **Consider end-target organ involvement:** kidneys, lungs, brain, heart, major joints involvement (hips, antlanto-axial)
3. **Check drugs safety and adherence:** For more information see BSR and BHPR guideline on prescribing drugs in pregnancy and breastfeeding https://doi.org/10.1093/rheumatology/keac551 **Stop retinoids,** if being used for psoriasis
4. **Request tests:** FBC, U&E, LFT, Anti-CCP, RF, ANA panel including ENAs in particular SSA & SSB, dsDNA, Lupus anticoagulant, anticardiolipin antibodies, B2-Glycoprotein-1, C3 and C4, PCR. Other, if applicable: echocardiogram, lung function tests
5. Discuss: • Effects of pregnancy on condition • Effects of condition on pregnancy • What to expect during pregnancy and after delivery • Refer complex cases when required: specialities (nephrologist, cardiologist, rheumatologist, geneticist) or tertiary centre. In particular Scleroderma with lung involvement, SLE with renal or thrombotic complications, as well as complex vasculitis and vascular EDS
6. **Prescribe:** Folic Acid 400 mg, 3 months prior to conception (5 mg if on Sulfasalazine), and Vitamin D 2000 iU (check levels)
7. **Advise contraception:** if pregnancy not recommended

[1] Uncomplicated disease requires all of no lung/kidney/heart/CNS/thrombotic/muscle involvement; controlled on current treatment; no current biological treatments.
[2] See 1
[3] See 1

Antenatal Care

Antenatal care
Disability focus: Rheumatic conditions can be associated with chronic pain and disabling symptoms. Consider legislative framework for equal access and reasonable adjustment requirements for activities of daily living (ADL)
Documentation
• Clear, concise documentation in all maternity notes regarding place of delivery and clinical factors indicating a more intensive pathway/ escalation of care.
Booking
• Bookings to be done by maternal medicine midwife - patients to be seen by maternal medicine clinicians within 2 weeks. • Urgent referral: in missed cases, urgent referral to maternal medicine team by community midwife – patients to be seen within 2 weeks.
First Visit (within maximum 2 weeks of patient presenting to maternity)

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- Follow: items 1 to 6 in “Pre-conception counselling” including blood investigations
- Echocardiogram if not done previously in cases of SLE, Sjogren, Systemic Sclerosis, Vasculitis and EDS type IV.
- Baseline ECG: in systemic scleroderma
- MDT care: (obstetric medicine team, obstetrician, nephrologist, rheumatologist, haematologist, specialist midwife, obstetric anaesthetist): depending on target organ involvement.
- Patients with rheumatological disease often have a named rheumatologist or specialist nurse, ensure follow up arranged during pregnancy.
- Enquire about medication adherence.
- Prescribe: Aspirin (150mg OD in women with hypertension or risk factors for PET), Folic Acid 400 mg (5mg throughout pregnancy if on Sulfasalazine) and Vitamin D 2000 IU
- SSA (anti-Ro) positive:
  - i) Discuss fetal heart block (2-4%) and arrange: fetal echo (16 weeks and 24 weeks) and 2 weekly fetal heart auscultation in between scans, up to 26 weeks then every 2 - 3 weeks up to 32 weeks. Urgent referral to fetal medicine should be made if FH is <100bpm between 17 and 26 weeks.
  - ii) Neonatal alert card/form
  - iii) Consider Hydroxychloroquine 200 - 400mg (ensure has had LFT and advise eye check annually)

- SSB (anti-La) positive:
  - i) Discuss neonatal cutaneous lupus (10%)
  - ii) Neonatal alert card

- Lupus anticoagulant or anticardiolipin Ab +ve: and known CTD disease.

Ensure that patients with APS are on appropriate dose of LMWH throughout pregnancy (50%, 75% or full treatment dose) depending on risk factors.

- VTE score: to be calculated to all patients - Follow RCOG guideline.
- Ensure: follow up in pregnancy with named Rheumatologist
- Decide: need for tertiary assessment (see above)

Follow up visits.

- Review: every 4-6 weeks from 16 to 28 weeks, every 2 – 4 weeks from 28 weeks onwards depending on clinical picture
- BP and urine dipstick: in every visit
- Repeat: FBC, U&E, LFTs, CRP, urine PCR and MSU as appropriate
- Document the presence or absence of flare or other symptoms: if flare suspected, start VTE prophylaxis and perform bloods (see special considerations) and liaise with Rheumatologist.
- Consider serial third trimester growth scans depending on condition and clinical picture.
- Recalculate VTE score: every trimester. Follow RCOG guideline.

Midwifery input

- Discuss: family support, employment, financial challenges with signposting and identify self-care strategies
- Occupational therapy: If physical impairment, chronic pain, or ADL’s adaptation required, ensure named Midwife preferably with a specialist interest in care of pregnant women with disability and liaise with occupational therapist (OT) via GP or via specialist unless maternity specific OT specialist available.
- Assess and plan: for pregnancy change adaptations, birth & inpatient admissions considerations, and robust postnatal planning.
- Employ strategies for practical independent parenting, infant feeding with consideration to antenatal breastmilk collection and reducing fatigue by identifying strategies.
- Encourage: colostrum harvesting

Special Considerations

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SLE

- Check: complement (C3&C4), anti dsDNA to differentiate between nephritis flare and PET
- Note: lower C3/C4 and higher DsDNA in active disease. Use sFlt/pLGF ratio to differentiate from preeclampsia

Sjogren's syndrome

- Identify: if primary or secondary
- Check: if Anti SSA / SSB (Ro/La) positive
  Continue: topical preparations for dry eyes/mouth are safe to continue

Rheumatoid Arthritis

- Continue medication including Biologics throughout pregnancy unless there is a reason not to. Administration frequency may need to be adjusted in the third trimester may be required for some Biologics with long half-lives.
- Use history, FBC, CRP to assess disease activity – ESR often raised during pregnancy.
- Refer: to Obstetric anaesthetist – risk of atlantoaxial subluxation
- Ensure women with hip issues have had a mobility assessment and discussion regarding labour positions antenatally

Systemic sclerosis and Scleroderma

- Ascertain type:
  Women with localized cutaneous scleroderma without organ involvement have good prognosis.
  Women with diffuse systemic sclerosis with organ involvement have risk of rapid deterioration.
- Refer: women with interstitial lung disease, pulmonary hypertension, or renal involvement to tertiary unit for assessment and possible part or full care
- Arrange: MDT with respiratory physician, nephrologist, anaesthetist, cardiologist depending on organ involvement
- Prescribe: Nifedipine to manage symptoms in women with Raynaud's phenomenon
- Caution: with Dexamethasone for fetal lung maturity in women with renal involvement - risk of scleroderma renal crisis with accelerated phase hypertension. Case by case assessment of risk vs benefit

Ankylosing spondylitis

- Assess: need for tertiary referral e.g., interstitial, or restrictive lung disease
- Arrange appropriate imaging according to organ involvement.
- Refer: to Obstetric anaesthetist for spinal assessment
- Continue with pharmacological treatment – If using NSAIDs, stop at 28 weeks

Psoriatic arthritis

- Continue on pharmacological treatment/biologics.
- Stop retinoids if being used for psoriasis.
- Continue topical steroids as required

Ehlers Danlos Syndrome (EDS)

- Ascertain: type of EDS
  i) Hypermobile – commonest type, lower risk with good prognosis
  ii) Vascular – high risk, tertiary referral
- Hypermobility:
  Enquire: about symptoms of POTS (Information about Pregnancy & PoTS - PoTS UK)
  Refer: to preterm surveillance clinic if history of mid trimester miscarriage, risk of PPROM and PTL
  Discuss: risk of precipitate labour and PPH
- Vascular EDS:
  Refer: for tertiary assessment
  Discuss: risk of PTL
  Discuss: risk of uterine and or aortic rupture

Subsequent visits

- Prescribe: beta blockers for women with POTS who are symptomatic. Inform women that there will be a need for neonatal monitoring for hypoglycaemia if they have been on beta blockers.
- Arrange: third trimester growth scans if on beta blockers
- Delivery mode: vaginal delivery advised for women with hypermobility.
  Preterm C/S: maybe advised for women with vascular EDS to reduce the risk of uterine rupture

Delivery Planning & Intrapartum Care

Delivery

- Delivery plan:
  Multidisciplinary meeting including rheumatologist, obstetric anaesthetist, obstetrician/ obstetric medicine specialist, midwife should be held no later than 34 weeks gestation to plan delivery and intrapartum care.
- Plan should include Place, mode, and timing of delivery.
- Medications: to continue/discontinue, hydrocortisone cover. Assess VTE and make a plan for restarting any medication that has be discontinued.
- Neonatal: Need for preterm delivery and availability of a Level 3 Neonatal facility
- Midwifery considerations: personalised birth plan including optimal birth positions, access to the birth pool & hydrotherapy, birth support and assess ability to access the environment safely.

Things to consider.

- Disease severity: intensive maternal monitoring may be required in those with significant systemic disease e.g. cardiorespiratory, renal involvement
- Obstetric issues: (e.g., PET, Diabetes)
- Fetal Congenital Heart Block (CHB) and severity. Will require delivery by caesarean section in a tertiary centre with paediatric cardiology expertise in anticipation of requirement for pacemaker.
- Other specific fetal concerns: (e.g., SGA/ FGR, fetal anomaly)

Most women will not have any of the above issues and can deliver locally/Birth Centre, e.g., women with mild, well controlled RA who are anti-Ro/SSA, anti-La/SSB negative, scleroderma with disease localised to skin, Raynaud's disease, SLE.
This will need to be decided on an individualised basis.

Continuous Fetal Monitoring (CEFM)

- The presence of a rheumatological condition is not in itself an indication for CEFM.
- The decision for continuous monitoring must be made on an individualised basis.
- Examples of women requiring CEFM +/-STAN (if available) include:
  - A woman with diffuse scleroderma including respiratory impairment, with an SGA/FGR fetus.
  - Women with Antiphospholipid syndrome and Obstetric complication e.g., pre-eclampsia

Intrapartum care

- Long-term steroid treatment: i.e., > 5mg Prednisolone for more than 14 days
  - Give 50-100mg Hydrocortisone QDS
  - Or give 1 dose 100mgs IV prior to CS
- Continue: all regular medications
- Timing: LMWH consideration according to dose and mode of delivery
- Discontinue: Aspirin 150 mg (if not done at 36 weeks)
- Fluid management: Accurate fluid monitoring and maintain neutral fluid balance.
- Consider HDU admission: depending on severity / complications.

Postnatal care

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Postnatal care

- Observations: Close observation for those with complicated disease must be observed throughout the hospital stay and usual management of hypertension
- Sepsis: Low threshold for treatment of sepsis in women on immunosuppressive drugs
- Review: intrapartum documentation plan for any medication changes to be made in the postpartum period

Medication

- Avoid: NSAIDs in women with renal involvement
- Biologics: biologics can be restarted 48 hours after caesarean and 24 hours after vaginal delivery
- Thromboprophylaxis
    - Undertake: individual VTE risk assessment
    - Consider: 6 weeks thromboprophylaxis postnatally (e.g., received antenatal thromboprophylaxis)

Switch: patients who are on lifelong thromboprophylaxis (e.g., APS) back to oral anticoagulants on day 5 – 7 when risk of bleeding is negligible. *Some women may prefer to continue on LMWH for few weeks to reduce hospital visits for INR monitoring*

Neonatal care

- Advice: women taking biologics in the third trimester to avoid live vaccinations BCG) in the neonate for the first six months of life, and for 12 months of life if on Infliximab * for details about specific biologics, please refer to network statement on biologics due to be published on website soon.
- Hypoglycaemia: if mother on B-blockers, baby to be checked for hypoglycaemia
- Breastfeeding on biologics: It is safe to breastfeed on while on biologics used during pregnancy.
- Vaccines: BCG should be avoided in the first 6 months of life if Biologics exposure during pregnancy. Live vaccines given at 12 months of age (MMR and varicella) can be given on schedule.

For more information see BSR guidance- https://academic.oup.com/view-large/90343081
https://academic.oup.com/view-large/400515513

Contraception

- Discuss: effective contraception as planned pregnancies have better outcome
- Barrier methods: are safe but have lower success rates.
- Hormonal method: can be used as they do not impact on disease; however, oestrogen increases the risk of VTE and so should be avoided if APS.
- Progesterone only methods: (including IUS) are effective.
- Copper IUCD: can be used.
- For more details on contraception, see https://www.fsrh.org/documents/ukmec-2016/

Follow up.

- Senior review before discharge
- Clear documentation: course of pregnancy and specific follow up needs to be documented and included in discharge summary with a copy to the rheumatology team.
- Clear plan: for return to rheumatology team should be put in place.
- Follow up with maternal medicine: in complex cases. This should take place 4-6 weeks from delivery and ensure follow up by Rheumatology team.
- Routine post-natal follow-up with GP: maternal and neonatal 6-8 weeks from delivery

Midwifery input

- Consider: support for the post-delivery mother caring for her baby whilst an inpatient, with consideration for birth partner assistance 24/7
- Identify: environmental challenges, additional equipment requirements and accessibility to showers and other amenities

BSR guideline on prescribing drugs in pregnancy and breastfeeding: comorbidity medications used in rheumatology practice. 2022 https://doi.org/10.1093/rheumatology/keac552NB 1: MHRA recent evidence recommends discontinuing NSAIDs at 28 weeks. Non-steroidal anti-inflammatory drugs (NSAIDs): potential risks following prolonged use after 20 weeks of pregnancy - GOV.UK (www.gov.uk)NB 2: MHRA recent safety update advises against pregabalin use in pregnancy. Pregabalin (Lyrica): findings of safety study on risks during pregnancy - GOV.UK (www.gov.uk)

Table 2. Summary of drug compatibility in pregnancy and breastfeeding

	Compatible peri-conception	Compatible with 1st trimester	Compatible with 2nd/3rd trimester	Compatible with breastfeeding	Compatible with paternal exposure
Conventional painkillers					
Paracetamol	Yes	Yes[a]	Yes[a]	Yes	Yes[b]
Codeine	Yes	Yes	Yes	Yes[a]	Yes[b]
Tramadol	No	No	Yes[a]	Yes[c]	Yes[b]
Other chronic pain treatments					
Amitriptyline	Yes	Yes	Yes	Yes	Yes[b]
Gabapentin	Yes	Yes[d]	Yes[d]	Yes	Yes[b]
Pregabalin	Yes	Yes[d]	Yes[d]	Yes	Yes[b]
Venlafaxine	Yes	Yes	Yes	Yes[e]	Yes[b]
Fluoxetine	Yes	Yes	Yes	Yes[c,e]	Yes[b]
Paroxetine	Yes	Yes	Yes	Yes[c,e]	Yes[b]
Sertraline	Yes	Yes	Yes	Yes[c,e]	Yes[b]
Duloxetine	Yes	Yes	Yes	Yes[e]	Yes[b]
NSAIDS					
NSAIDs	Yes	Yes[a,f]	Stop by week 30	Yes	Yes
COX-2 inhibitors	No	No	No	No	Yes[b]
Other drugs					
Colchicine	Yes	Yes	Yes	Yes	Yes[b]
Dapsone	Yes	Yes	Yes	Yes	Yes[b]
Anti-platelet agents					
LDA	Yes	Yes	Yes	Yes	Yes[b]
Clopidogrel	Yes[c]	Yes[c]	Yes[c]	Yes[c]	Yes[b]
Anticoagulants					
Warfarin	No	No	Exceptional circumstances only	Yes	Yes[b]
LMWH	Yes	Yes	Yes	Yes	Yes[b]
DOACs	No	No	No	Rivaroxaban only	Yes[b]
Fondaparinux	Yes[c]	Yes	Yes	Yes	Yes[b]
Bisphosphonates					
Bisphosphonates	Stop 3 months in advance	No	No	No data	Yes[b]
Antihypertensives					
ACEi/ARBs	Stop when pregnancy confirmed		Exceptional circumstances only	Yes (enalapril)[c]	Yes[b]
Nifedipine	Yes	Yes <90 mg/day	Yes <90 mg/day	Yes	Yes[b]
Amlodipine	Yes[c]	Yes[c]	Yes[c]	Yes[c]	Yes[b]
Labetalol*	Yes	Yes	Yes	Yes	Yes[b]
Methyldopa*	Yes	Yes	Yes	Yes	Yes[b]
Pulmonary vasodilators					
Sildenafil		Multi-disciplinary team assessment		No data	Yes[b]
Bosentan		Multi-disciplinary team assessment		No data	Yes[b]
Prostacyclines		Multi-disciplinary team assessment		No data	Yes[b]

For further information and caveats, see relevant recommendations and main text in Executive Summary and full Guideline.
[a] Intermittent use advised – see main text for details.
[b] Based on limited data and no association with adverse foetal development or pregnancy outcome; therefore, unlikely to be harmful.
[c] Limited evidence, but unlikely to be harmful.
[d] Limited evidence regarding use for treatment of chronic pain in pregnancy. High-dose folic acid (5 mg/day) recommended.
[e] Cessation of anti-depressant therapy in post-natal period is not recommended.
[f] Possible association with miscarriage and malformation.
* Drugs not included in original search, but added due to relevance.

BSR guideline on prescribing drugs in pregnancy and breastfeeding: immunomodulatory anti-rheumatic drugs and corticosteroids. 2022 https://doi.org/10.1093/rheumatology/keac551

NB: EULAR update June'24 - [AB1439 UPDATE OF THE EULAR POINTS TO CONSIDER FOR USE OF ANTIRHEUMATIC DRUGS IN REPRODUCTION, PREGNANCY AND LACTATION | Annals of the Rheumatic Diseases (bmj.com)]

Table 1. Summary of drug compatibility in pregnancy and breastmilk exposure

	Peri-conception	First trimester	Second/third trimester	Breastfeeding	Paternal exposure
Corticosteroids					
Prednisolone	Yes	Yes	Yes	Yes	Yes
Antimalarials					
Hydroxychloroquine (≤400 mg/day)	Yes	Yes	Yes	Yes	Yes
Conventional synthetic DMARDs					
Methotrexate (≤25 mg/week)	Stop ≥1 month pre-conception	No	No	No	Yes
Sulfasalazine (with folic acid 5 mg/day in first trimester)	Yes	Yes	Yes	Yes[a]	Yes[b]
Leflunomide	No: Cholestyramine washout	No	No	No	Yes
Azathioprine	Yes	Yes	Yes	Yes	Yes
Ciclosporin	Yes	Yes[c]	Yes[c]	Yes	Yes
Tacrolimus	Yes	Yes[c]	Yes[c]	Yes	Yes
Cyclophosphamide	Exceptional circumstances[d]	Exceptional circumstances[d]	Exceptional circumstances[d]	No	No
Mycophenolate mofetil	Stop ≥6 weeks pre-conception	No	No	No	Yes
Intravenous immunoglobulin	Yes	Yes	Yes	Yes	Yes
Anti-TNFα medications					
Infliximab	Yes	Yes	Yes[e]	Yes	Yes
Etanercept	Yes	Yes	Yes[f]	Yes	Yes
Adalimumab	Yes	Yes	Yes[g]	Yes	Yes
Certolizumab	Yes	Yes	Yes	Yes	Yes
Golimumab	Yes	Yes	Yes[g]	Yes	Yes
Other biologic DMARDs					
Rituximab	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
IL-6 inhibitors	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
IL-1 inhibitors	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
Abatacept	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
Belimumab	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
IL-17 inhibitors	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
IL-12/23 inhibitors	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
Targeted synthetic DMARDs					
JAK-inhibitors	Stop ≥2 weeks pre-conception	No	No	No	Yes[j]

For further information and caveats, see relevant recommendations and main text in the executive summary and full guideline.
[a] In the healthy, full-term infant only.
[b] If conception is delayed by >12months, consider stopping sulfasalazine alongside investigation of other causes of infertility.
[c] Suggested monitoring of maternal blood pressure, renal function, blood glucose and drug levels.
[d] Only in cases of severe (life or organ-threatening) maternal disease.
[e] If low risk of disease flare and stopped by 20 weeks, full-term infant can have a normal vaccination schedule.
[f] If low risk of disease flare and stopped by 32 weeks, full-term infant can have a normal vaccination schedule.
[g] If low risk of disease flare and stopped by 28 weeks, full-term infant can have a normal vaccination schedule.
[h] May be considered to manage severe maternal disease if no other pregnancy-compatible drugs are suitable.
[i] If used in third trimester, avoid live vaccinations in infant vaccination schedule until 6 months of age.
[j] Limited evidence.

Who to contact – Each unit will have individual arrangements for specialist cover.

Within the hospital – each hospital will have individual arrangements
Maternal medicine midwives Maternal medicine consultant Consultant Rheumatologist: preferably the woman's named Rheumatologist if possible Acute flare management: medical team/rheumatology team via A&E. Maternal medicine team must be informed of admission and review the woman as an inpatient
Within network or category B and C patients
Maternal medicine consultant to refer patient using "Refer a Patient" platform

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Rheumatology care plan Algorithm

Pre-conception counselling

Aims: Optimise disease control prior to conception in order to improve pregnancy outcomes

- Assess: disease history
- Consider: end-target organ involvement
- Check: drugs safety and adherence
- Discuss:
  - effects of pregnancy on condition
  - effects of condition on pregnancy
- Refer: complex cases when required
- Prepare: for pregnancy Folic acid and Vitamin D

→

-FBC
-U&E
-LFT
-Anti-CCP
-ANA panel (including ENAs – anti-Ro/La)
-Lupus anticoagulant
-Anticardiolipin antibodies
- 2-Glycoprotein-1
-C3 and C4 if relevant
-PCR if relevant
-Echocardiogram if relevant
-Lung function tests if relevant

Antenatal care

Aims: identify and manage pregnancy complications and multidisciplinary team approach

- Booking: timely and referral to maternal medicine
- Check: drugs safety and adherence
- Team: MDT care
- Monitor: BP and urinalysis closely
- Aspirin 150mg if high risk for PET
- Anti-Ro +: fetal cardiac monitoring / HCQ
- Thromboprophylaxis: VTE score
- Decide: need for tertiary assessment / transfer of care
- Plan: Delivery and post-natal plan
- Midwifery input:
  assess and plan for pregnancy change adaptations, birth & inpatient admissions.

→

-Worsening symptoms
-Anti-dsDNA ↑
-C3/C4 ↓ ↔
-PCR (>30 mg/mmol can be disease activity or pre-eclampsia)
-urea/creatinine ↑

SUSPECTED or DIAGNOSED FLARE

↓

Liaise with Rheumatologist

Intrapartum Care

Aims: follow individualised plan in order to prevent labour complications

- No indication: for CS and IOL if disease is quiescent.
- Fetal monitoring: continuous in labour in selected cases eg. Major organ involvement, APS, PET, IUGR
- Steroids: IV hydrocortisone in labour if >5mgs steroids > 14days
- Liaise: with anaesthetic and neonatal teams as appropriate

Postnatal Care

Aim: follow individualised plan for disease management postnatally and address any special neonatal needs

- Routine: postnatal care
- Sepsis: low threshold
- Consider: thromboprophylaxis
- Arrange: rheumatology, maternal medicine and GP follow up, as appropriate
- Consider: medication change if postpartum flare
- Resume: Biologic 24hrs post vaginal, 48hrs post c/s
- Encourage: breastfeeding
- Discuss: contraception
- Discuss: immunisation
- Counselling: re future pregnancies

→ Babies of mothers on extended use of biologics: not for live vaccine (BCG) for 6 months