7: Obstetrics, gynaecology and urinary–tract disorders

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Supporting information

7.2 Treatment of vaginal and vulval conditions

7.2.1 Preparations for vaginal and vulval changes

Estriol 0.1% cream (Ovestin®)	15g
Estradiol 10microgram vaginal tablet (Vagirux®)	24

Topical oestrogens should be used in the smallest effective amount to minimise absorption of the oestrogen. Risk of endometrial hyperplasia and carcinoma on long term or repeated use of topical vaginal oestrogens is uncertain; treatment should be reviewed at least annually with a special consideration given to any symptoms of endometrial hyperplasia or carcinoma.
Note – Estradiol 0.06% transdermal gel (Oestrogel Pump Pack®) is licenced only for transdermal hormone replacement therapy for oestrogen deficiency symptoms in postmenopausal women. It is not to be used locally for vaginal atrophy.

7.2.2 Vaginal and vulval infections

*** Refer to chapter 5 of the Sheffield Formulary for more detail ***

Preparations for vaginal and fungal candidiasis

Clotrimazole 500mg pessary	single dose
Fluconazole 150mg capsule	single dose
Clotrimazole 1% cream	20g, 50g

Candidal vulvitis can be treated locally with cream but is almost invariably associated with vaginal infection which should also be treated using pessaries or cream inserted high into the vagina. All topical and oral azoles give a 75% cure. Oral fluconazole treatment may be considered as second line for infections not responded to topical treatment or for situations where topical treatment cannot be used.
In pregnancy, avoid oral azoles and use clotrimazole 100mg pessaries for 6 nights.

Preparations for other vaginal infections

Metronidazole 0.75% vaginal gel	40g
Clindamycin 2% cream	40g

For bacterial vaginosis oral metronidazole should be considered as first line treatment. It is as effective as topical treatment but is cheaper.
See Chapter 5 for more detailed information and advice on use in pregnancy.

7.3 Contraceptives

Prescribers should note NICE guideline on long acting reversible contraception (LARC):
NICE CG30 Long acting reversible contraception, Oct 2005 last updated July 2019

- Individuals requiring contraception should be given information about and offered a choice of all methods, including LARC methods.
  (Which method of contraception is right for me? | Sexwise)
- Individuals should be provided with the method of contraception that is most acceptable to them, unless it is contraindicated. Those considering LARC methods should receive detailed information- both verbal and written- to enable them to choose a method and use it effectively.
- Increasing the uptake of LARC methods may help reduce the numbers of unintended pregnancies.

Detailed guidance on contraceptives is available from the Faculty of Sexual and Reproductive Healthcare (FSRH), including:

UK Medical Eligibility Criteria (UKMEC) for contraception use
Guidelines and statements
Drug Interactions with hormonal contraceptives

7.3.1 Combined hormonal contraceptives (CHCs)

See Appendix 2 for combined oral contraceptive (COC) guidelines.
Patient information leaflet on COCs is available here
COCs should be prescribed by brand.

Combined oral contraceptives (COCs)
Branded generic versions of most COCs are available that offer cost savings over the originator brands
Preferred brands are indicated in **bold**.

Type of Preparation	Oestrogen content	Progestogen content	Sheffield Formulary Brand	Originator Brand (non-formulary)
Low strength 21-day preparations	Ethinylestradiol 20micrograms	Desogestrel 150micrograms	**Gedarel® 20/150**	Mercilon®
		Gestodene 75micrograms	**Millinette® 20/75**	Femodette®
24 active and 4 placebo tablets		Drospirenone 3mg (see note below*)	**Eloine®**	
Standard strength 21-day preparations	Ethinylestradiol 30micrograms	Levonorgestrel 150micrograms	**Rigevidon®**	Microgynon 30®, Ovranette®
		Desogestrel 150micrograms	**Gedarel® 30/150**	Marvelon®
		Gestodene 75micrograms	**Millinette® 30/75**	Femodene®
		Drospirenone 3mg (see note below*)	**Yacella®**	Yasmin®
	Ethinylestradiol 35micrograms	Norgestimate 250micrograms	**Cilique®**	Cilest®

*Drospirenone has antiandrogenic properties and diuretic properties. These products are more expensive than other COCs and should not routinely be a first or second choice. They may be preferred for individuals with acne, cyclical weight gain or premenstrual dysphoric disorder, taking into account the thromboembolic risk. Use with care if an increase in plasma potassium concentration might be hazardous

Risk of venous thromboembolism with desogestrel or gestodene containing pills is approximately 9-12 per 10,000 individuals per year of use compared with 5-7 per 10,000 for individuals using pills containing levonorgestrel, norgestimate and norethisterone. The risk for drospirenone containing pills is similar to those containing desogestrel or gestodene.

https://www.gov.uk/drug-safety-update/combined-hormonal-contraceptives-and-venous-thromboembolism-review-confirms-risk-is-small
https://www.gov.uk/drug-safety-update/yasmin-risk-of-venous-thromboembolism-higher-than-levonorgestrel-containing-pills

MHRA conclude that:

- the risk of blood clots with all low dose (≤50micrograms ethinylestradiol) combined hormonal contraceptives (CHCs) is small.
- there is good evidence that the risk of venous thromboembolism (VTE) may vary between products, depending on the progestogen.
- CHCs that contain levonorgestrel, norethisterone, or norgestimate have the lowest risk of VTE.
- the benefits of any CHC far outweigh the risk of serious side effects.
- prescribers and individuals should be aware of the major risk factors for thromboembolism, and of the key signs and symptoms.

Provided individuals are informed of the relative risks of venous thromboembolism and accept them, the choice of oral contraceptive is for the individuals to make jointly with the prescriber in light of their individual medical history, contra-indications and experience with other contraceptive formulations. Risk factors should be reassessed at routine appointments.

7.3.2 Progestogen-only contraceptives (POCs)

7.3.2.1 Oral progestogen-only contraceptives (POPs)

Patient information leaflet on POPs is available here

Note: These should be **prescribed generically**

Desogestrel 75micrograms	**3 x 28**
Norethisterone 350micrograms	3 x 28
Levonorgestrel 30micrograms	1 x 35

Desogestrel has not demonstrated a better contraceptive rate over traditional POPs but is the first line formulary choice as it has a 12 hour window compared with the 3 hour window for traditional POPs; generic prescribing is recommended to maximise cost effectiveness.
Drospirenone 4mg (Slynd®) is a new POP with a 24 hour window and a 4 day pill free interval to improve bleeding pattern. It is more expensive than desogestrel and it is only advised for selected individuals where the wider window or bleeding pattern offers an advantage. Note – the missed dose advice differs from the other POPs and caution in users at risk of hyperkalaemia.
https://www.fsrh.org/news/fsrh-ceu-statement-drospirenone-4mg-progestogen-only-pill-slynd/

7.3.2.2 Parenteral progestogen-only contraceptives

Injectable preparations

Patient information leaflet on injectable progestogens is available here

Medroxyprogesterone acetate 150mg/ml IM- DMPA (Depo-Provera®)	1ml
Medroxyprogesterone acetate 104mg/0.65ml SC-DMPA (Sayana Press)	0.65ml

Sayana Press is suitable for self-administration, following suitable training by a health care professional (refer to SPC).

DMPA injections require to be disposed in a purple sharps container (See SPS guidance). Ensure this is prescribed for patients who are self-administering Sayana Press.

The use of progestogen-only injectable is associated with a small loss of BMD; this is usually recovered after stopping the injection and there is no evidence that the progestogen-only injectable increases the risk of fracture. Bone density scanning should be considered at initiation of treatment only for individuals at higher risk of bone loss and after 5 years in those using it as a long-term method of contraception. See Appendix 1 for further information.

Implants** **(Subdermal)**

Patient information leaflet on progestogen implant is available here

Etonogestrel 68mg in radiopaque flexible rod (Nexplanon®)

There have been rare reports of neurovascular injury and implant migration from the insertion site, including into the pulmonary artery. For further information and recommendations for healthcare professional see MHRA Drug Safety Update alerts:

https://www.gov.uk/drug-safety-update/nexplanon-etonogestrel-contraceptive-implants-reports-of-device-in-vasculature-and-lung (June 2016)

Nexplanon (etonogestrel) contraceptive implants: new insertion site to reduce rare risk of neurovascular injury and implant migration (Feb 2020)

7.3.2.3 Intra-uterine progestogen-only system**

Patient information leaflet on progestogen intra-uterine system (IUS) is available here

Mirena® - levonorgestrel 52mg (20micrograms/24 hours)

Levosert® Levonorgestrel 52mg (20micrograms/24 hours)

Refer to Chapter 6 Endocrine, section 6.4.1.2 for information on use for protection from endometrial hyperplasia during oestrogen replacement therapy

Levonorgestrel-releasing intra-uterine systems (LNG-IUS) should always be prescribed by brand name because products have different indications, durations of use, and introducers (MHRA DSU Jan 2016) . Note: consult product SPCs for up-to-date information on licensed indications and duration of use.

For further information and comparison of available LNG-IUS products see:
FSRH Guidance Intrauterine Contraception (Mar 23, amended July 23) and
CEU statement Mirena: extension of licence for contraception to 8 years (Jan 24)

7.3.4 Intra-uterine contraceptive devices (IUDs)**
Patient information leaflet on IUDs is available here

****IUDs, IUS and implants should only be inserted by those who are trained and regularly fitting.**

7.3.5 Emergency contraception (EC)
Patient information leaflet on emergency contraception is available here

Ulipristal acetate 30mg tablet 1 dose
Note: Ulipristal 5mg tablet (BNF 6.4.1.2) is the preparation used for fibroids not EC.

Levonorgestrel 1.5mg tablet 1 dose
Note: **do not prescribe as OTC brands** e.g. Levonelle® One Step as they are more expensive.

Notes:

1. A copper IUD (Cu-IUD) is the most effective method of EC and should be considered by ALL individuals who have had unprotected sexual intercourse (UPSI) and do not want to conceive.
   - Individuals should be given information regarding all methods of EC and signposted to services that can provide them. If an individual is referred on for a Cu-IUD, oral EC should be given at the time of referral in case the Cu-IUD cannot be inserted, or the individuals changes their mind. FSRH Guidance - Emergency Contraception (March 2017 amended July 2023)
   - To refer a patient for a Cu-IUD contact Sexual Health Sheffield

2. Choice between ulipristal (UPA) and levonorgestrel (LNG) should be individualised based on cost-effectiveness. Consider UPA as first line if UPSI is likely to have taken place during the 5 days prior to the estimated day of ovulation, or if UPSI occurred 96-120 hours ago.
   It is important to bear in mind that the evidence suggests that both drugs are ineffective if taken after ovulation.

3. Additional factors to consider when choosing between oral EC include:
   - interaction with any recently taken progestogen-containing drugs
   - interaction with enzyme inducing drugs
   - BMI/body weight
   - requirement for ongoing contraception.

For more information see FSRH EC algorithm 2 - Decision-making Algorithm for Oral Emergency Contraception (page x)

7.4 Drugs for genito-urinary disorders

7.4.1 Drugs for urinary retention
Alpha-blocker for treatment of benign prostatic hyperplasia (BPH):

Tamsulosin 400micrograms modified release capsule 30

Alpha-blockers - note: drowsiness or dizziness may affect performance of skilled tasks (e.g. driving); effects of alcohol may be enhanced; risk of postural hypotension (contraindicated in history of PH); if

patient receiving antihypertensives these should be reviewed when starting an alpha-blocker for BPH - may require reduced dosage and specialist supervision

Alpha-blocker ineffective or prostate significantly enlarged:
Finasteride 5mg tablet see chapter 6 6.4.2
Combination of finasteride and tamsulosin

After initiating finasteride treatment, improvement may be seen within a short time, but the full effect may not be achieved until 6 months of treatment.
Condoms should be worn if partner is pregnant or could become pregnant and these individuals should avoid handling crushed/broken finasteride tablets because of the possibility of absorption and risk to a male foetus.
Finasteride decreases serum concentration of prostate cancer markers such as prostate-specific antigen; reference values may need adjustment. See SPC for more details

7.4.2 Drugs for urinary frequency, enuresis and incontinence

See Appendix 3 – Medication Pathway for Treatment of Overactive Bladder (Adults)

Oxybutynin hydrochloride 2.5mg, 5mg tablet	56, 56/84 respectively
Tolterodine tartrate 1mg, 2mg tablet	56
Neditol XL® (tolterodine) 2mg, 4mg MR capsule	28
Solifenacin succinate 5mg, 10mg tablet	30
Trospium 60mg MR capsules	28
Mirabegron 25mg, 50mg tablet	30

Lifestyle and physical therapies should be considered before drug treatments

NICE Guidance can be found for the treatment of these conditions using the following links:
NICE CG171 Urinary Incontinence: The management of urinary incontinence in women. 2013
NICE CG97 Lower urinary tract symptoms: The management of lower urinary tract symptoms in men. 2010

Note: Mirabegron is contraindicated in patients with severe uncontrolled hypertension (systolic blood pressure ≥180 mm Hg or diastolic blood pressure ≥110 mm Hg, or both). See MHRA warning for more information. Monitor BP regularly.

Stress incontinence is generally managed by non-drug methods. NICE CG171 advises that duloxetine should not routinely be offered but may be considered as second-line therapy if women prefer pharmacological to surgical treatment or are not suitable for surgical treatment. It is licensed for the treatment of moderate to severe stress incontinence in women.

Nocturnal enuresis in children

Desmopressin 200micrograms tablets	30
Desmopressin 120micrograms, 240mcg sublingual tablets (DesmoMelt®)	30

Limit fluid intake to minimum from 1 hour before dose until 8 hours afterwards.
For recommendations regarding management of nocturnal enuresis in children see NICE CG 111 Nocturnal enuresis: the management of bedwetting in children and young people. Oct 2010

7.4.5 Drugs for erectile dysfunction

Sildenafil 25mg, 50mg, 100mg tablets	4, 8

Note: generic sildenafil has been removed from the selected list scheme (SLS). SLS endorsement is still required for Viagra® and other PDE-5 inhibitors. See guidance document here for further advice and information on prescribing generic sildenafil.

Prescribing of vacuum pumps and constrictor rings: following assessment and training by the specialist clinician in secondary care, primary care will be requested to write the prescription for the supply of the pump. Subsequently, only on-going prescription of the constrictor rings is required by the primary care clinician.

Appendices:

Appendix 1	Effect of depo-medroxyprogesterone acetate [DMPA] on bone mineral density
Appendix 2	Combined oral contraceptive guidelines Detailed guidance on contraceptives is available from the Faculty of Sexual and Reproductive Healthcare Clinical Effectiveness Unit: http://www.fsrh.org/pages/clinical_guidance.asp
Appendix 3	Medication Pathway for Treatment of Overactive Bladder (Adults)

Version control

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Review date: October 2019 extended to January 2021

Amendments:
Amendment to section 7.2.1: Approved by APG February 2018
Amendment to 7.2.1 – Vagirux® preferred brand of estradiol 10microgram vaginal tablet: Approved by APG April 2022
Amendment 7.4.5 – addition of vacuum pumps and constrictor rings. Principle approved by APG April 2023; update agreed by FSG May 2023; amendment approved by FSG under delegated authority of APG 4 July 2023
Section 7.3 Contraceptives and Appendix 1 and 2 updated and approved by APG: 18 April 2024; review date April 2027

Appendix 1:

The effect of depo-medroxyprogesterone acetate [DMPA] on bone mineral density

Individuals who use DMPA (Depo-Provera® / Sayana Press®) may lose significant bone mineral density (BMD). It is not yet known whether the effect on BMD increases the risk of osteoporosis and fractures in later life. There is some evidence that BMD starts to recover when DMPA is stopped but the extent of recovery is currently unknown and may be related to duration of exposure. The effect of DMPA may be more important in adolescents, in whom the usual process of bone mineral accretion may be reversed and the attainment on peak bone mass is not known, and in those approaching the menopause where additional BMD loss will occur.

The following is recommended:

- Individuals aged under 18 years, should not use DMPA first line for contraception because of its effect on BMD, but DMPA may be considered if all alternative contraceptive options are unsuitable or unacceptable.
- Individuals of any age with significant lifestyle and/or medical risk factors for osteoporosis, other methods of contraception should be considered prior to use of DMPA, which may be considered if all alternative contraceptive options are unsuitable or unacceptable. Significant risk factors for osteoporosis include:
  - Alcohol abuse and/or tobacco use
  - Chronic use of drugs that can reduce bone mass, e.g. anticonvulsants or corticosteroids
  - Low body mass index or eating disorder, e.g. anorexia nervosa or bulimia
  - Previous low trauma fracture or family history of osteoporosis
- In individuals of all ages, careful re-evaluation of the risks and benefits of treatment should be carried out every 2 years in those who wish to continue use.
- Individuals are generally advised to switch to another method at age 50 years. If they do not wish to stop DMPA, consideration may be given to continuation, providing the benefits and risks have been assessed and the individual informed of the potential risks.

References

FSRH Clinical Guideline: Progestogen-only injectable (Dec 2014, amended July 2023)
NICE CG30 Long acting reversible contraception (26 Oct 2005 last updated 2 July 2019)
MHRA Updated guidance on the use of Depo-Provera contraception (18 Nov 2004, available on National Archives here)
National Osteoporosis Guideline Group (NOGG) Clinical guideline for the prevention and treatment of osteoporosis (updated September 2021)

DMPA contraception and bone densitometry

The metabolic bone centre at STHFT has given the following advice on which individuals receiving DMPA should be referred for bone densitometry (Metabolic Bone Centre April 2014):

• Use of DMPA contraception is associated with a decrease in bone mineral density at the spine and hip. The majority of the bone loss occurs in the first few years. The bone loss is greater in individuals who use DMPA before peak bone mass (about age 25), and in smokers, individuals with low BMI, low dietary calcium intake or high alcohol intake. The decrease in BMD is mostly reversible on cessation of DMPA.
• Assessment of risk factors for low bone mass should be made when DMPA is being considered, particularly in young individuals. Lifestyle advice on maintaining bone density should be given. In individuals at higher risk of bone loss, bone density measurement may

be helpful when deciding whether to use DMPA. In individuals with no other risk factors for bone loss, bone density measurement is probably not required at initiation of DMPA.
• In individuals who wish to use DMPA long-term, a bone density measurement after five years may be helpful.

A more detailed guidance document is available from the Metabolic Bone Centre, Northern General Hospital, using the following link:
http://nww.sth.nhs.uk/STHcontDocs/STH_CGP/MetabolicBone/DepotGuideline.doc
For advice on individual cases the Metabolic Bone Centre doctors can be contacted on 0114 2714783.

Appendix 2

Combined Oral Contraceptive (COC) Guidance

Check contra-indications for COCs
See: UKMEC (April 2016 amended September 2019) and NICE CKS Contraception assessment

Yes → Alternative method e.g. POP

No

Risk factors for VTE?
See BNF and NICE CKS Pulmonary embolism risk factors
2 or more risk factors = avoid
1 risk factor = use with caution

Yes (≥2) → Alternative method e.g. POP

≤ 1

Risk factors for arterial disease
NICE CKS Cardiovascular risk assessment

Enzyme inducing drugs.

For full guidance see:
https://www.fsrh.org/documents/ceu-clinical-guidance-drug-interactions-with-hormonal/ (May 2022)

Rifampicin or rifabutin
Use alternative method of contraception not affected by enzyme induction.

All others
Advise alternative method not affected by enzyme induction but if not acceptable, in exceptional circumstances, consider:
Ethinylestradiol ≥ 50mcg used in a continuous regimen or tricycling of packs (taking three packs back to back with a shortened pill free interval of 4 days)
Continue for the duration of treatment with the enzyme-inducing drug and for 4 weeks after stopping.
(NB unlicensed use)

For short course of enzyme inducing drug (≤2 months) - see guidance referenced above

Low strength oestrogen
Gedarel® 20/150
Millinette® 20/75
*Eloine®

OSE ← Standard strength oestrogen **Rigevidon® 30/150**

OSE → Consider alternative method

PSE → Standard strength oestrogen **Gedarel® 30/150** **Millinette® 30/75** *Yacella® 30/3

BTB → See guidance: https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceproblematicbleedinghormonalcontraception/ **Cilique® 35/250**

OSE

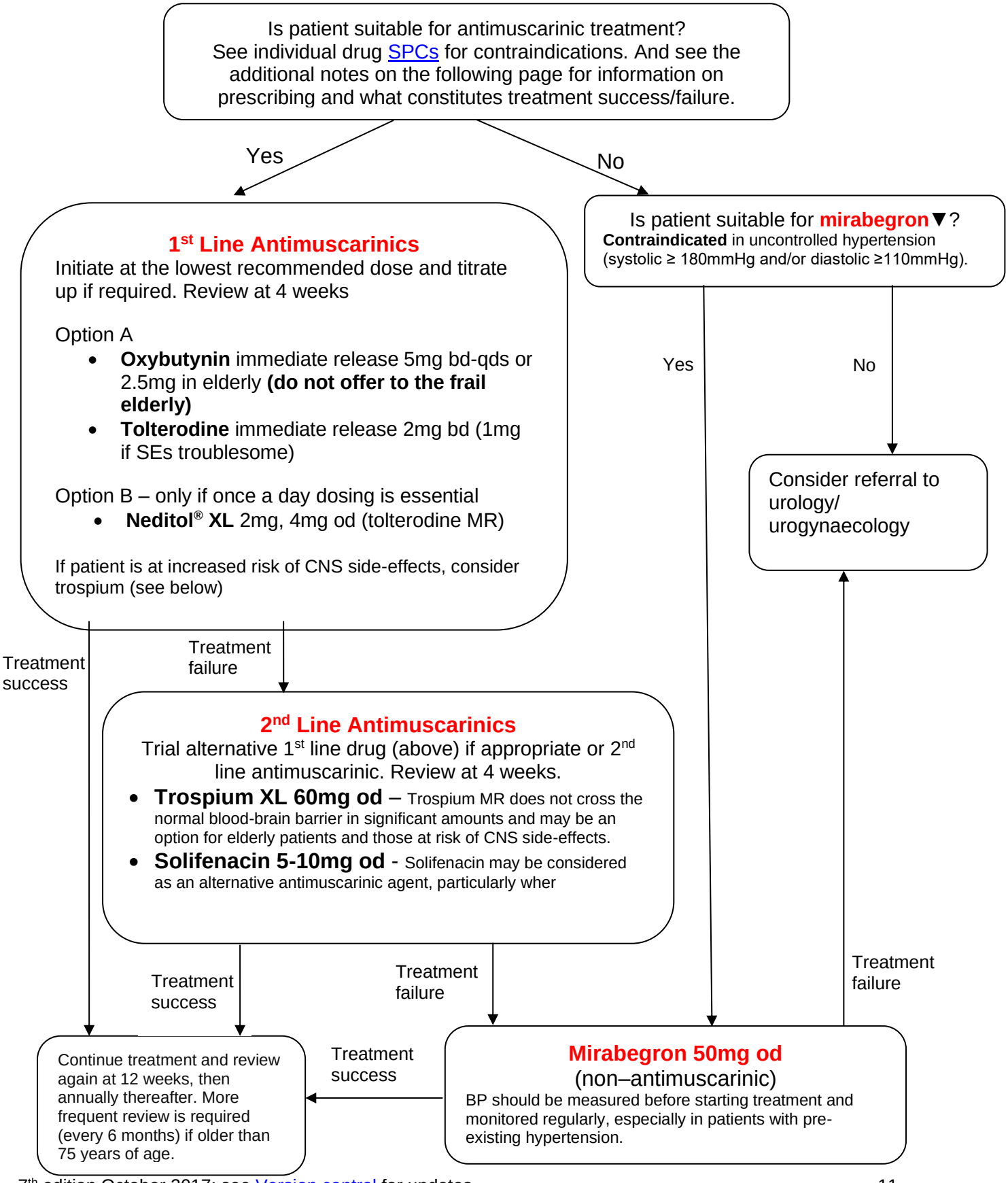
OSE = Oestrogenic side effects
BTB = Break through bleeding
PSE = Progestogenic side effects
Bold products = first choice

* Drospirenone has antiandrogenic properties and diuretic properties. These products are more expensive than other COCs and should not routinely be a first or second choice. They may be preferred for individuals with acne, cyclical weight gain or premenstrual dysphoric disorder, taking into account the thromboembolic risk. Use with care if an increase in plasma potassium concentration might be hazardous.

Appendix 3

Medication Pathway for Treatment of Overactive Bladder (Adults)

This pathway is for adult patients who have failed conservative management for their overactive bladder symptoms. This includes trials of both lifestyle interventions and bladder training.



Supporting information

This guideline offers best practice advice on the management of adults with overactive bladder. Treatment and care should take into account individual needs and preferences. Patients should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals.

What constitutes a treatment success/failure?
Drug treatment should be reviewed 4 weeks after the start of each treatment. NICE guidance recommends the use of incontinence specific, quality of life scales (e.g. the International Consultation on Incontinence patient questionnaire (ICIQ)). Treatment failure can be concluded if:

- There is no improvement in OAB symptoms
- There is suboptimal improvement
- There are intolerable adverse effects

Antimuscarinics
Before treatment starts take into account coexisting conditions, the use of other medicines that affect the total anticholinergic burden and the risk of adverse effects (for example, increased with concomitant treatment with other drugs with antimuscarinic side effects).

More information can be found on co-prescribing of anticholinergic medication, including antimuscarinics, on the PrescQIPP Anticholinergic Drugs Bulletin, including information on individual drugs Anticholinergic Burden (ACB) scores

It is beneficial to discuss with all patients:

- The likelihood of success and common adverse effects **and**
- The frequency and route of administration, **and**
- Some adverse effects such as dry mouth and constipation may indicate that treatment is starting to have an effect, **and**
- That they may not see the full benefits until they have taken the treatment for at least 4 weeks

For additional information on specific drugs see the SPC.

Mirabegron (Betmiga®▼)
Mirabegron, a β_3 adrenoceptor agonist, shows similar efficacy to antimuscarinic drugs but has a different side effect profile. NICE recommends it as an option for treating the symptoms of overactive bladder for people in whom antimuscarinic drugs are contraindicated or clinically ineffective, or have unacceptable side effects. Mirabegron does not score on the ACB scale, so could be considered as an alternative for patients who have a high ACB score.

Patients not suitable for mirabegron – consider for referral to urology/ urogynaecology

- Severe renal/hepatic impairment with/without CYP3A inhibitors – see table below
- Patients with severe uncontrolled hypertension (systolic blood pressure ≥ 180 mm Hg and/or diastolic blood pressure ≥ 110 mm Hg). See MHRA Drug Safety Alert.

Mirabegron dosing table

		Without inhibitor	With inhibitor*
Renal impairment (eGFR ml/min/1.73^2)	Mild (60-89)	50 mg od	25 mg od
	Moderate (30-59)	50 mg od	25 mg od
	Severe (15-29)	25 mg od	Not recommended
	End stage (<15)	Not recommended	Not recommended
Hepatic impairment (Child-Pugh Class)	Mild (Class A)	50mg od	25 mg od
	Moderate (Class B)	25mg od	Not recommended
	Severe (Class C)	Not recommended	Not recommended

*__Strong CYP3A inhibitors__ (itraconazole, ketoconazole, clarithromycin, ritonavir)

References

- https://pathways.nice.org.uk/pathways/urinary-incontinence-in-women
- https://pathways.nice.org.uk/pathways/lower-urinary-tract-symptoms-in-men
- https://www.prescqipp.info/urinary-incontinence/category/99-urinary-incontinence