

Study report

Meningioma medroxyprogesterone feasibility assessment in the IDA Germany and IMRD UK databases

Version 1.1

Administrative details of the data analysis	
Substance(s)	Medroxyprogesterone
Condition/ADR(s)	Meningioma
Short title of topic	Descriptive analysis of medroxyprogesterone
Regulatory procedure	Regulatory impact evaluation
Rapporteur's country	
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1. Milestones

Milestone	Planned date
Study protocol drafted	28/10/2024
Analysis report by EMA circulated to Requester and Committee Members by	13/11/2024
Comments from Requester and Committee Members on analysis report by	13/11/2024
Final analysis report circulated to Requester and Committee Members by	13/11/2024

2. Brief description of the study

A descriptive study to measure exposure to medroxyprogesterone in women, and the number of women meningioma who have been prescribed medroxyprogesterone. These data will be used to inform decision making by the EMA TDA-RWE team and the PRAC impact group around the feasibility of a larger network study.

3. Rationale and background

Risk minimization measures (RMM) were recommended by PRAC in November 2022 for medroxyprogesterone to address a safety concern related to and an increased incidence of meningioma. The RMM involved the following:

A: High dose medroxyprogesterone: All formulations of medroxyprogesterone for injection. Oral formulations of medroxyprogesterone containing at least 100 mg. High dose medroxyprogesterone products are shown in Table 1 (IMRD UK) and Table 2 (IDA Germany).

B: Low dose medroxyprogesterone: Oral formulations of medroxyprogesterone containing less than 100 mg. Low dose medroxyprogesterone products are shown in Table 3 (IMRD UK) and Table 4 (IDA Germany).

A study is being considered through the Darwin EU network however more granular descriptive information is required to make informed choices on its feasibility and design. The aim of this study was to perform a descriptive analysis to measure exposure to medroxyprogesterone in women, and the number of women meningioma who have been prescribed medroxyprogesterone.

4. Research question and objectives

1. What proportion of women have exposure to medroxyprogesterone and how is this distributed by age?
2. What proportion of women have exposure to low-dose and high dose medroxyprogesterone?
3. How many women with meningioma are present in the respective databases?
4. What proportion of women with meningioma have recorded exposure to medroxyprogesterone?

5. Methods

Data sources

IDA Germany version June 2024 and IMRD UK version May 2024 were used for the analysis.

Population

All prescriptions for medroxyprogesterone products of interest were identified in female patients.

Exposure

Medroxyprogesterone overall and stratified into low-dose and high-dose exposure (please see Table 1 to 4 for the categorization of prescriptions into for low-dose and high-dose exposure for each database).

Outcome

Recorded diagnostic codes for meningioma (Table 5 and 6).

Analysis

The number of female patients with a prescription for medroxyprogesterone was recorded by 5-year age groups. This was also done separately for high and low dose medroxyprogesterone products. Results were also stratified by time period (before 2014 vs 2014 or later).

All female patients with a diagnosis of meningioma were identified. The distribution of age at onset of meningioma in female patients was studied among all female patients with meningioma, and also stratified by time period (meningioma prior to 2014 vs 2014 or later).

All prescriptions for medroxyprogesterone products of interest after the date of the first meningioma diagnosis were identified in female patients. This was defined as a prescription for a medroxyprogesterone product of interest on the date of the first meningioma diagnosis or later. This was also done separately for high and low dose medroxyprogesterone products. Results were also stratified by time period of the prescription (before 2014 vs 2014 or later).

The proportion of all meningioma cases that concerned intraspinal meningioma, and the proportion that concerned malignant meningioma was noted.

6. Results

Medroxyprogesterone prescriptions in female patients

In IDA Germany, a total of 51,972 female patients (31,584 patients before 2014 and 25,056 patients since 2014) had received one or more prescriptions for medroxyprogesterone of which 32,282 female patients (18,099 patients before 2014 and 17,867 patients since 2014) had received high dose medroxyprogesterone (62%; 57% before 2014 and 71% since 2014) and 20,103 female patients (13,701 patients before 2014 and 7380 patients since 2014) had received low dose medroxyprogesterone (39%; 44% before 2014 and 29% since 2014).

In IMRD UK, a total of 156,147 female patients (103,039 patients before 2014 and 70,458 patients since 2014) had received one or more prescriptions for medroxyprogesterone of which 107,522 female patients (74,930 patients before 2014 and 46,493 patients since 2014) had received high dose medroxyprogesterone (69%; 73% before 2014 and 66% since 2014) and 53,217 female patients (29,235 patients before 2014 and 25,934 patients since 2014) had received low dose medroxyprogesterone (34%; 29% before 2014 and 37% since 2014).

For prescribing by age group, please see Figures 1 and 2 for prescribing of medroxyprogesterone classified as high dose and low dose, respectively, in IDA Germany and in IMRD UK. For results stratified by time period, please see Figures 3 and 4.

It can be seen from Figures 1 and 2 that high dose medroxyprogesterone products are prescribed to younger women compared to low dose medroxyprogesterone products. This may reflect that high dose medroxyprogesterone products are used for contraception. Low dose medroxyprogesterone products have instead a peak at around 50 years of age, which may reflect use for climacteric symptoms, although they are also prescribed in younger ages, which may reflect use for gynaecological disorders.

The relative prescribing of low dose medroxyprogesterone vs high dose medroxyprogesterone decreased since 2014 in IDA Germany. In IMRD UK the opposite was observed with a relative increase in low dose medroxyprogesterone.

Meningioma in female patients

In IDA Germany, meningioma was identified in a total of 25,435 female patients (7438 patients before 2014 and 17,997 patients since 2014).

In IMRD UK, meningioma was identified in a total of 2891 female patients (1296 patients before 2014 and 1595 patients since 2014).

The age distribution at the time of a meningioma diagnosis in all female patients with meningioma, and stratified by time period, is shown in Figure 5 for IDA Germany and Figure 6 for IMRD UK.

A meningioma diagnosis seems to be most frequent in female patients between the ages 50 to 79 years.

Medroxyprogesterone prescriptions in female patients with meningioma

In IDA Germany a total of 20 female patients had received at least one medroxyprogesterone prescription after the meningioma diagnosis (5 patients received medroxyprogesterone before 2014 and 17 patients received medroxyprogesterone since 2014).

High dose medroxyprogesterone was prescribed after the meningioma diagnosis in 16 female patients (4 patients received medroxyprogesterone before 2014 and 14 patients received medroxyprogesterone since 2014).

Low dose medroxyprogesterone was prescribed after the meningioma diagnosis in 5 female patients (one patient received medroxyprogesterone before 2014 and 4 patients received medroxyprogesterone since 2014).

In IMRD UK a total of 82 female patients had received at least one medroxyprogesterone prescription after the meningioma diagnosis (38 patients received medroxyprogesterone before 2014 and 55 patients received medroxyprogesterone since 2014).

High dose medroxyprogesterone was prescribed after the meningioma diagnosis in 51 female patients (26 patients received medroxyprogesterone before 2014 and 36 patients received medroxyprogesterone since 2014).

Low dose medroxyprogesterone was prescribed after the meningioma diagnosis in 32 female patients (13 patients received medroxyprogesterone before 2014 and 19 patients received medroxyprogesterone since 2014).

7. Conclusion

There was limited prescribing of medroxyprogesterone in IDA Germany and a relatively small number of patients with a meningioma diagnosis (n=20) had received a prescription for medroxyprogesterone. The majority of patients that received medroxyprogesterone after a meningioma diagnosis received a high dose product.

There was greater prescribing of medroxyprogesterone in IMRD UK and a greater number of meningioma patients had received medroxyprogesterone after the diagnosis (n=82). Both high and low dose medroxyprogesterone products were prescribed in patients with meningioma.

Figure 1 Prescribing of medroxyprogesterone classified as high dose and low dose in IDA Germany

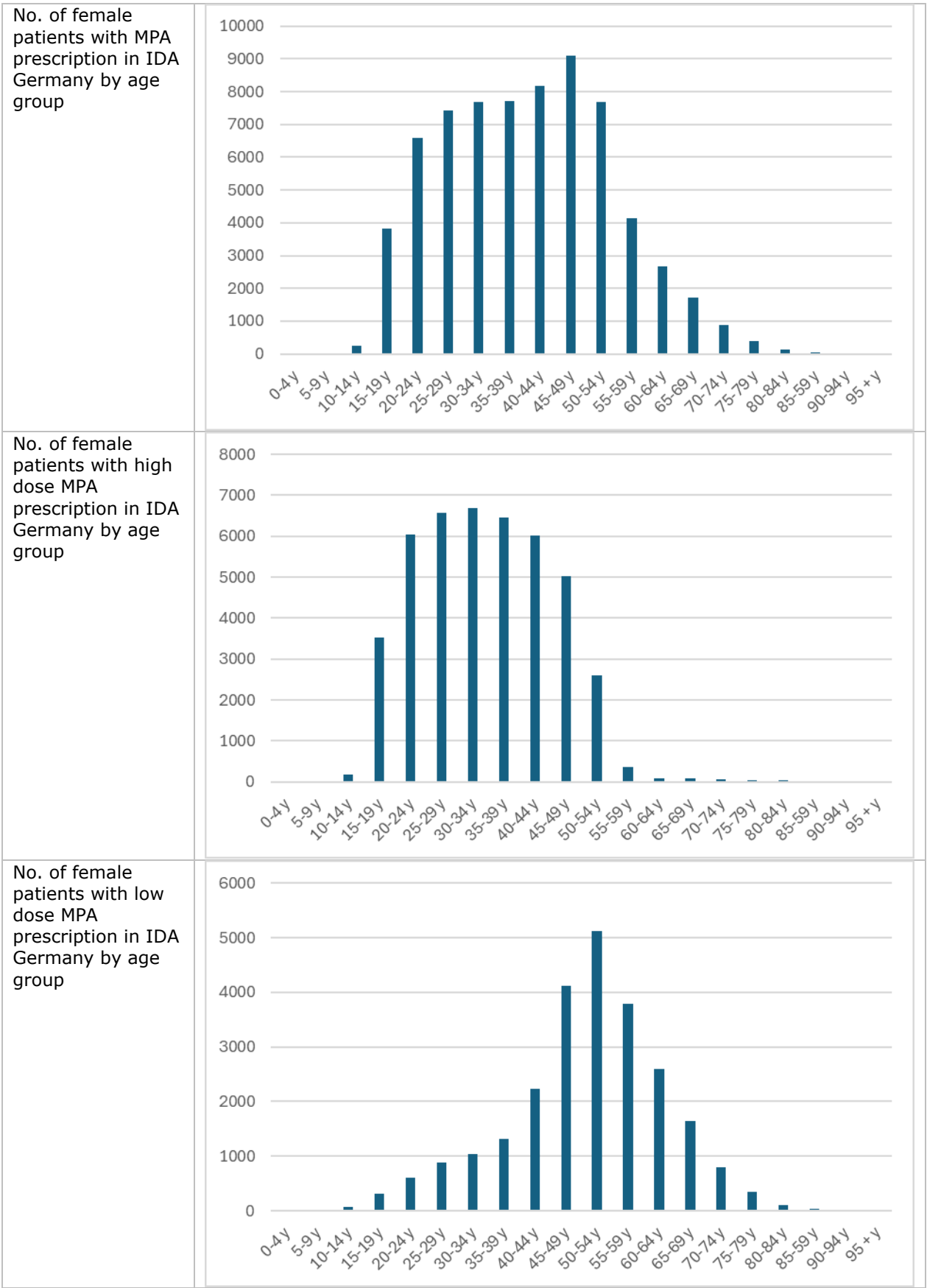


Figure 2 Prescribing of medroxyprogesterone classified as high dose and low dose in IMRD UK

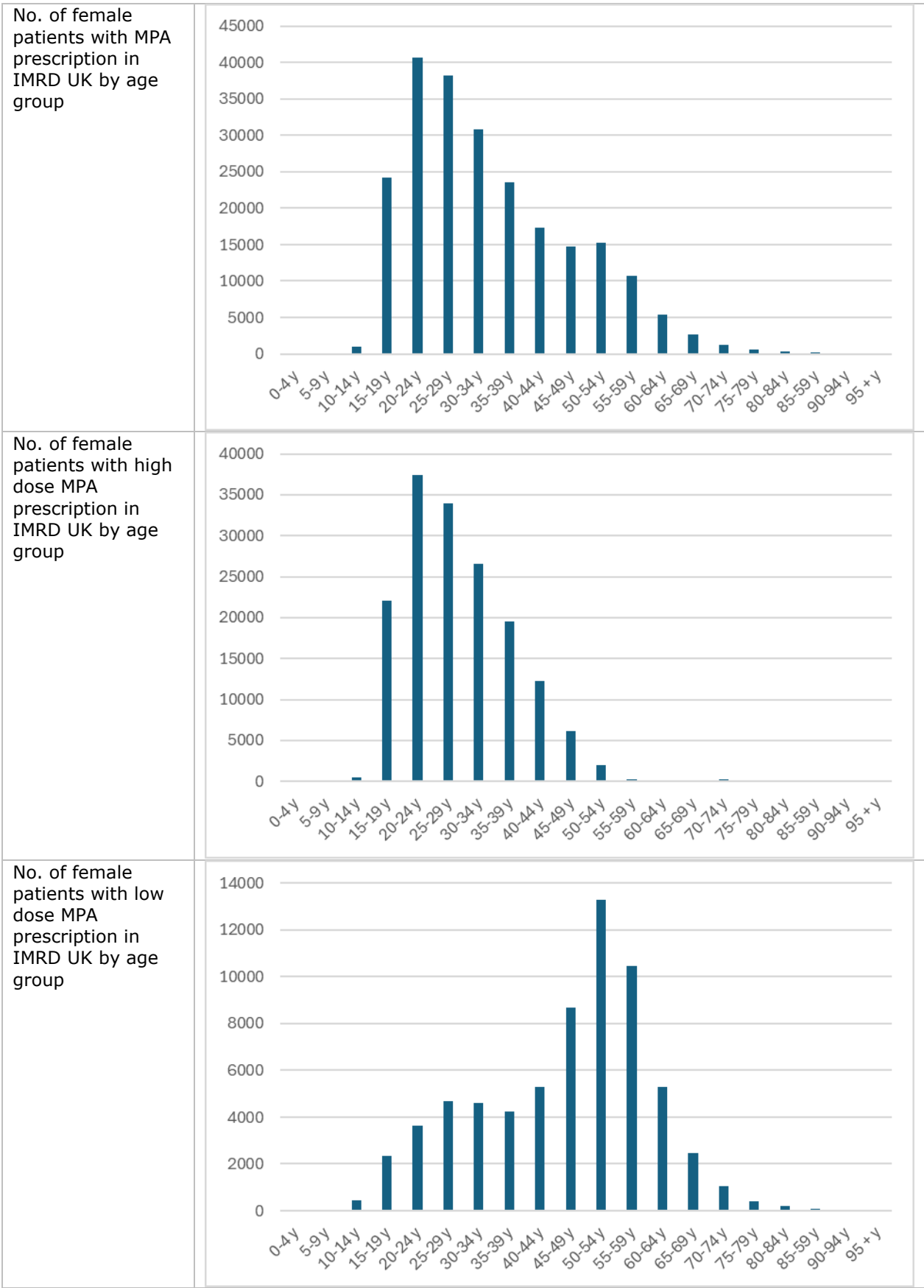


Figure 3 Prescribing of medroxyprogesterone classified as high dose and low dose in IDA Germany, stratified by time period

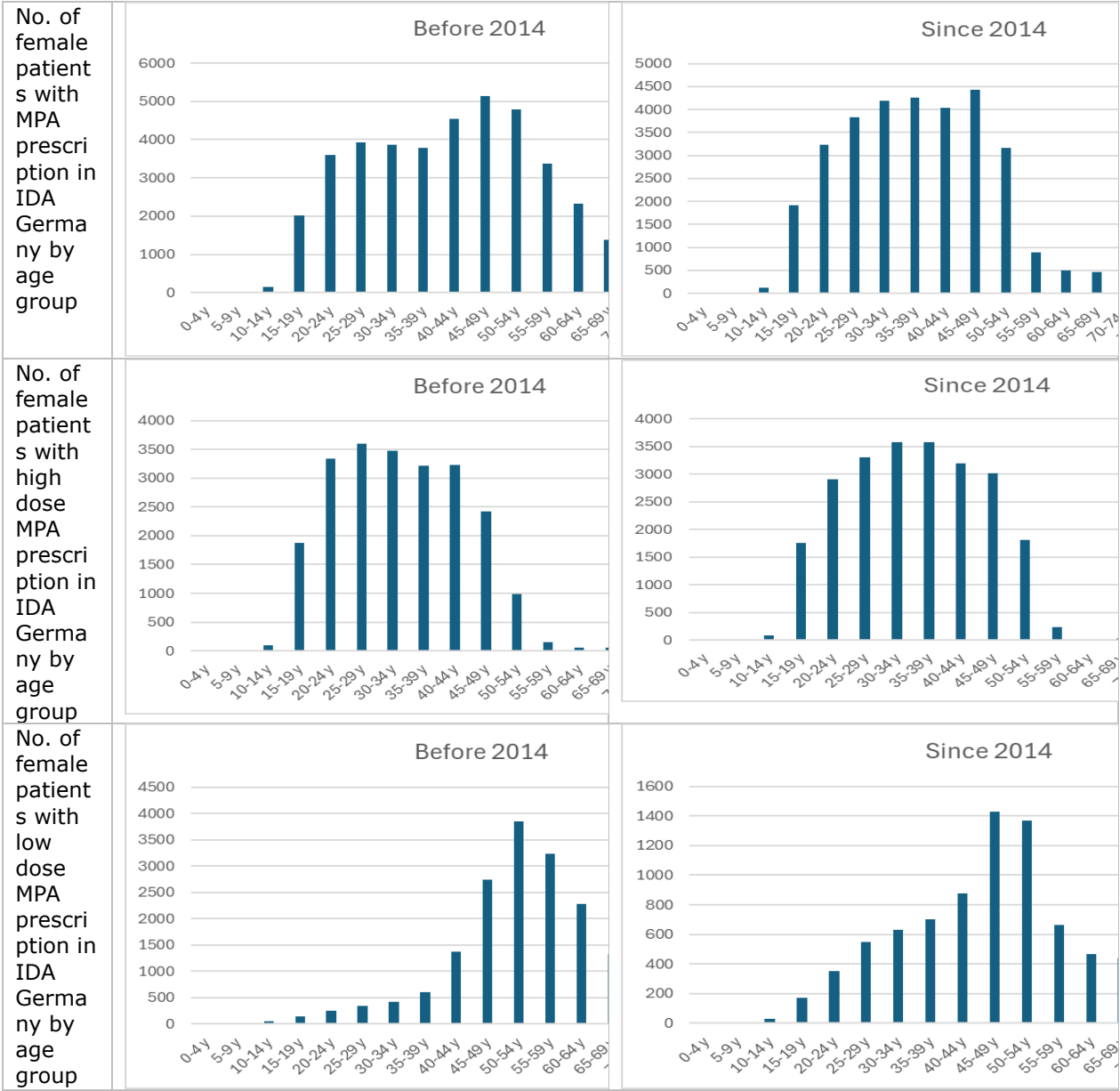


Figure 4 Prescribing of medroxyprogesterone classified as high dose and low dose in IMRD UK

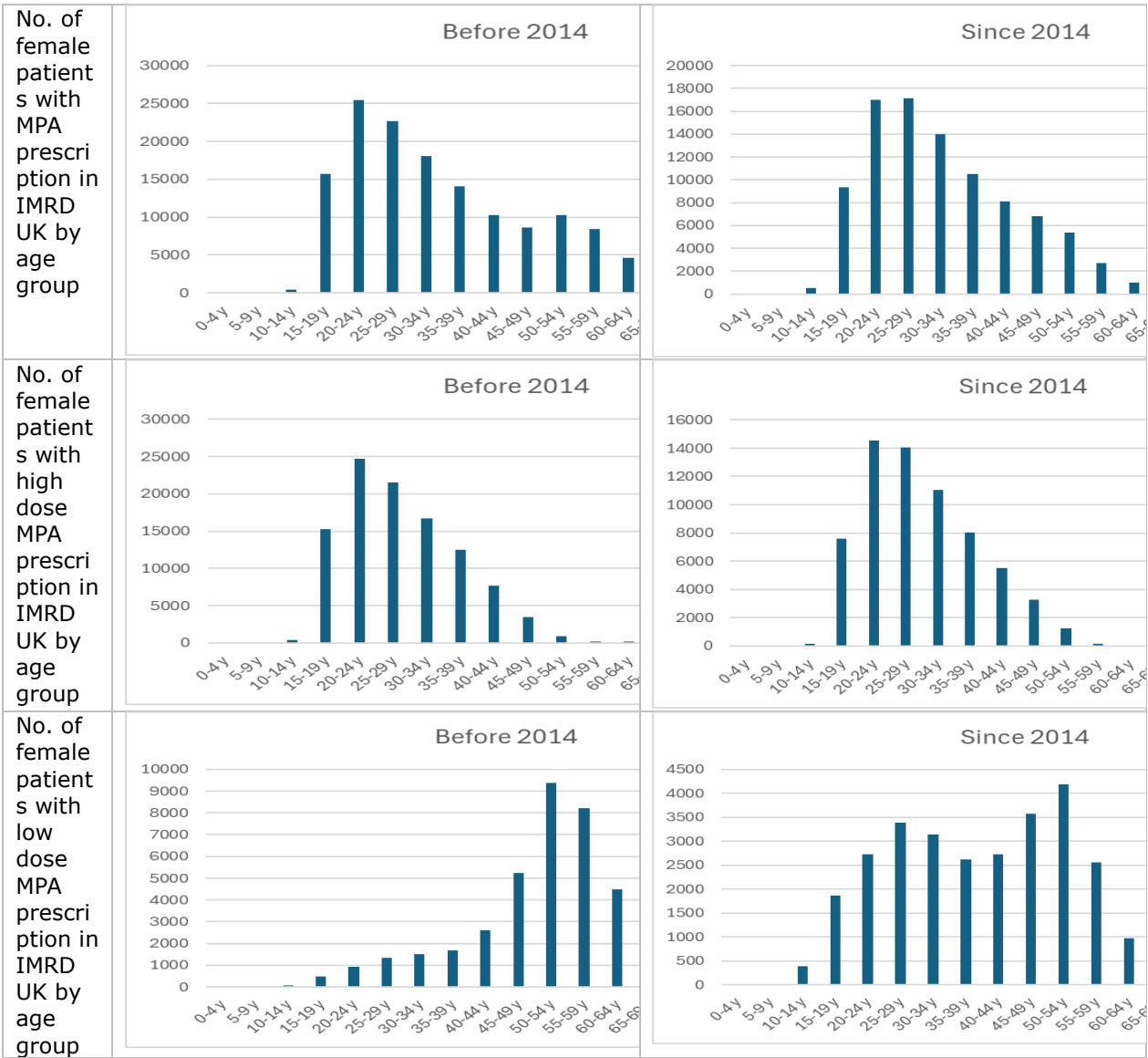


Figure 5 Distribution of age at the time of the meningioma diagnosis in IDA Germany, overall and stratified by time period

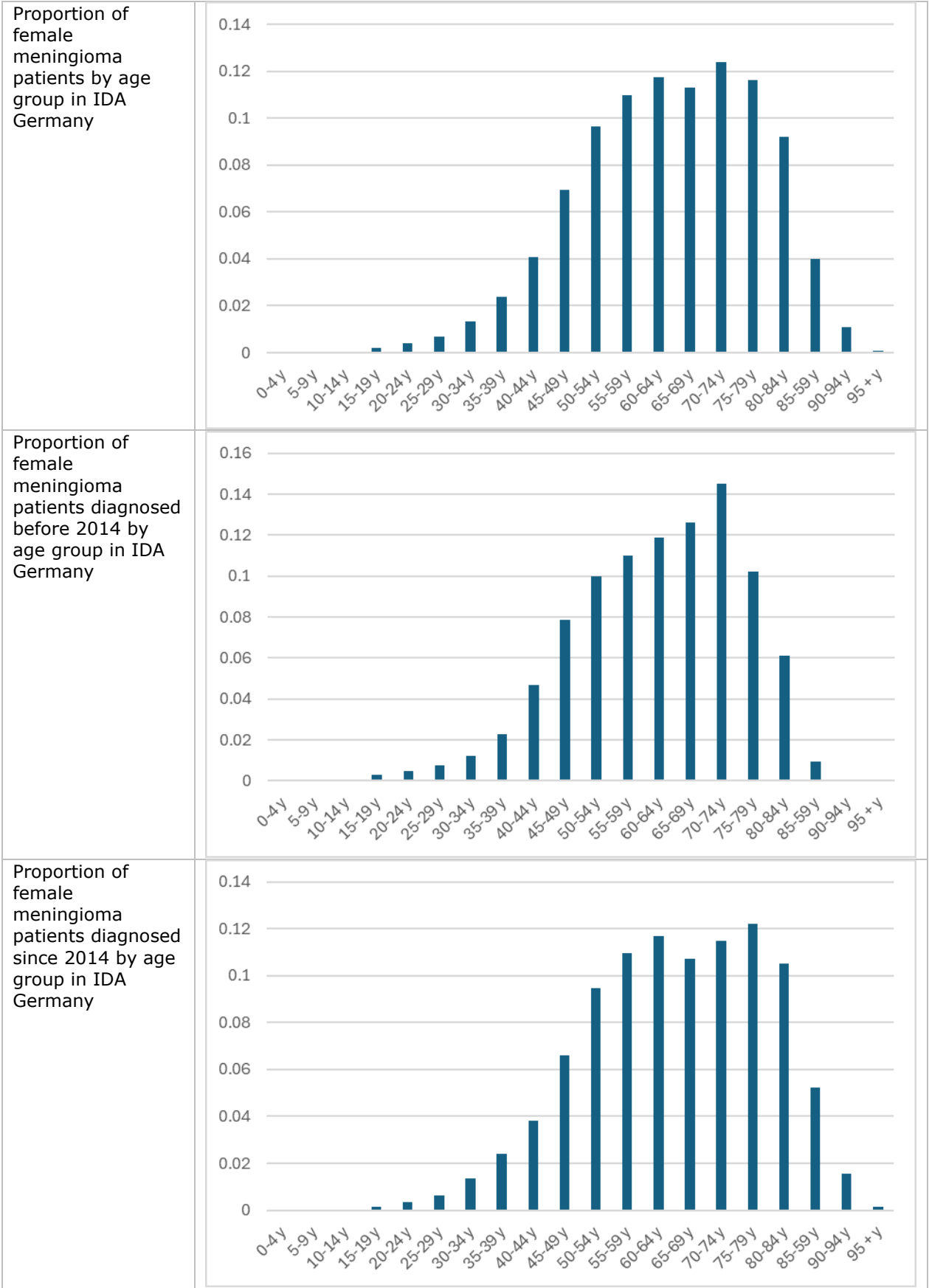


Figure 6 Distribution of age at the time of the meningioma diagnosis in IMRD UK, overall and stratified by time period

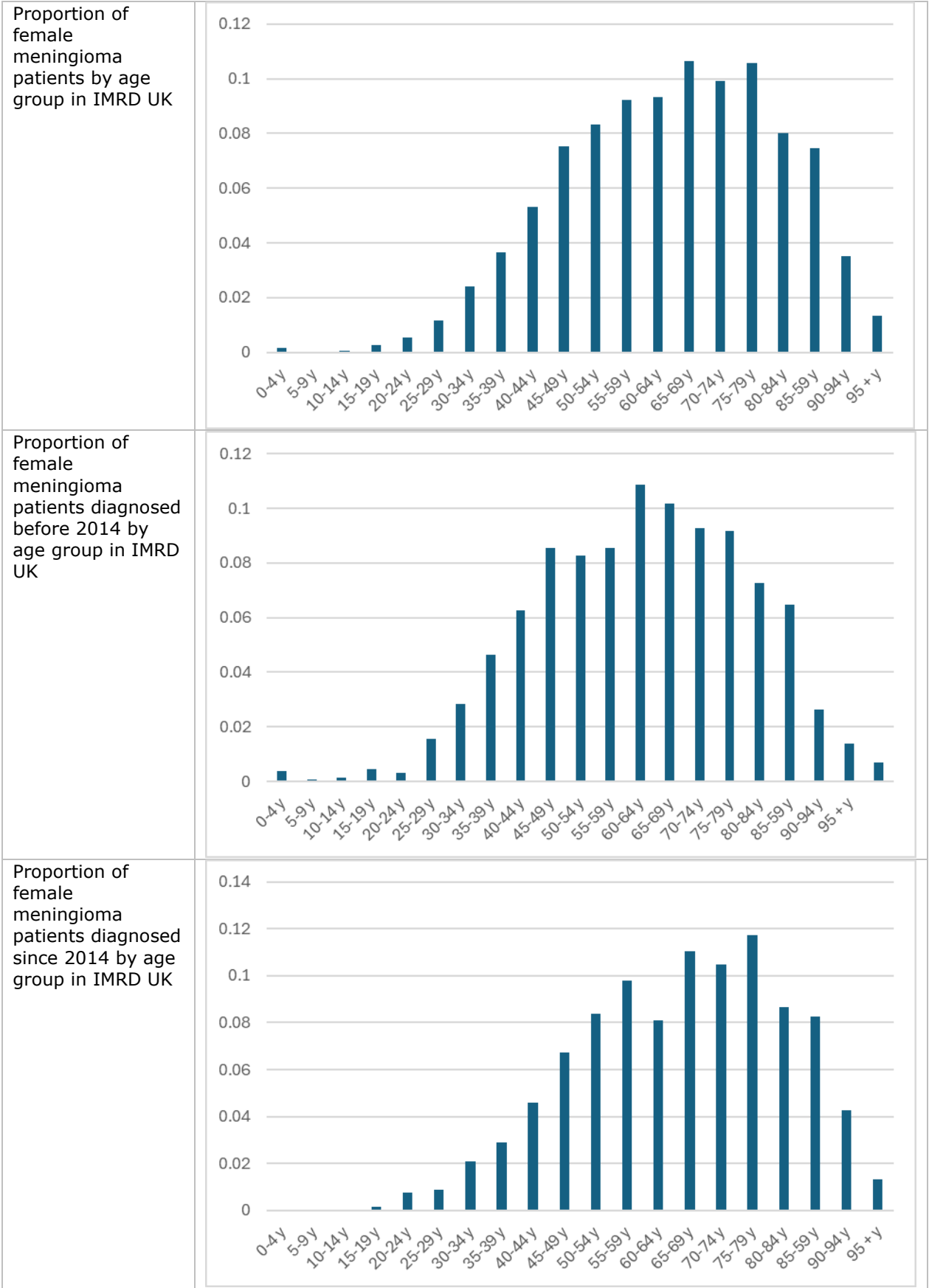


Table 1 High dose medroxyprogesterone products in IMRD UK

Drug code	Description
881941000033117	Medroxyprogesterone Acetate Injection 150 mg/1 ml
13858941000033114	Medroxyprogesterone 150mg/1ml suspension for injection vials
8493741000033118	Sayana Press 104mg/0.65 ml suspension for injection pre-filled disposable devices (Pfizer Ltd)
890041000033114	Medroxyprogesterone 150mg/1ml suspension for injection pre-filled syringes
2846341000033115	Depo-Provera 150mg/1ml suspension for injection vials (Pfizer Ltd)
8493641000033110	Medroxyprogesterone 104mg/0.65ml suspension for injection pre-filled disposable devices
427341000033112	Depo-Provera 150mg/1ml suspension for injection pre-filled syringes (Pfizer Ltd)
882141000033110	Medroxyprogesterone Acetate Injection 50 mg/ml, 3 ml vial
421741000033116	Depo-Provera Injection 150 mg/1 ml
420941000033112	Depo-Provera Injection 50 mg/ml, 3 ml vial
885341000033118	Medroxyprogesterone Acetate Injection 50 mg/ml
421841000033114	Depo-Provera Injection 50 mg/1 ml
1140641000033119	Provera 400mg tablets (Pfizer Ltd)
1139141000033115	Provera 200mg tablets (Pfizer Ltd)
1139041000033119	Provera 100mg tablets (Pfizer Ltd)
562141000033113	Farlutal 100 tablets (Pfizer Ltd)
901241000033119	Medroxyprogesterone 200mg tablets
895641000033113	Medroxyprogesterone 500mg tablets
882041000033111	Medroxyprogesterone Acetate Injection 150 mg/ml, 3.3 ml vial
901341000033112	Medroxyprogesterone 400mg tablets
562241000033118	Farlutal 250 tablets (Pfizer Ltd)
895441000033111	Medroxyprogesterone 250mg tablets
2924341000033118	Farlutal 500 suspension for injection 2.5ml vials (Pfizer Ltd)
2924241000033111	Medroxyprogesterone 500mg/2.5ml suspension for injection vials
877841000033113	Medroxyprogesterone Acetate Injection 200 mg/ml
420841000033116	Depo-Provera Injection 150 mg/ml, 3.3 ml vial
2189241000033119	Depo-Provera Oncology Injection 150 mg/ml, 3.3 ml vial
562341000033111	Farlutal 500 tablets (Pfizer Ltd)
895341000033117	Medroxyprogesterone 100mg tablets

Table 2 High dose medroxyprogesterone products in IDA Germany

Therapy code	Therapy name
GE7740	DEPO-CLINOVIR SPR AMP 150MG 1ML (N3)
GE95362	DEPO-CLINOVI.KHP>> SPR AMP 150MG 1ML (N3)
GE222136	DEPO-CLINOVI.MTK>> SPR AMP 150MG 1ML (N3)
GE5479987	DEPO PROGEVE.A8K>> DURCHSTECHFL 150MG 1ML (N3)
GE9235272	DEPO-CLINOVI.ML/>> FERT SPR 150MG 1ML (N3)
GE447870	DEPO PROVERA CC4>> FERT SPR 150MG 1ML (N3)
GE2616	DEPO-CLINOVIR FERT SPR 150MG 1ML (N3)
GE377275	DEPO PROVERA GRK>> FERT SPR 150MG 1ML (N3)
GE11842941	SAYANA ORI>> FERT SPR 104MG .65ML (N3)
GE114465	DEPO PROGEVE.E-M>> DURCHSTECHFL 150MG 1ML (N3)
GE243737	DEPO-CLINOVI.EUP>> SPR AMP 150MG 1ML (N3)
GE270585	DEPO PROVE.B DOC>> SPR AMP 150MG 1ML (N3)
GE13093419	SAYANA FERT SPR 104MG 6 .65ML
GE17556057	DEPO-CLINOVI.KHP>> DURCHSTECHFL 150MG 1ML (N3)
GE15108063	SAYANA EUP>> FERT SPR 104MG 6 .65ML
GE16563342	DEPO PROGEVE.R&G>> DURCHSTECHFL 150MG 1ML (N3)
GE10456704	SAYANA GRK>> FERT SPR 104MG .65ML (N3)
GE11060821	SAYANA AC9>> FERT SPR 104MG .65ML (N3)
GE10551247	DEPO-CLINOVI.ML8>> FERT SPR 150MG 1ML (N3)
GE8501020	SAYANA FERT SPR 104MG .65ML (N3)
GE3425861	DEPO-CLINOVI.ORI>> SPR AMP 150MG 1ML (N3)
GE4234827	DEPO PROVERA AC9>> FERT SPR 150MG 1ML (N3)
GE4378009	DEPO-CLINOVI.E-M>> FERT SPR 150MG 1ML (N3)
GE16882601	DEPO-CLINOVI.E-M>> FERT SPR 150MG 6 1ML
GE9427433	SAYANA KHP>> FERT SPR 104MG .65ML (N3)
GE22705388	DEPO-CLINOVI.AB8>> FERT SPR 150MG 1ML (N3)
GE225836	DEPO-CLINOVIR DURCHST.I.M. 150MG 1ML (N3)
GE4659311	DEPO-CLINOVI.ORI>> FERT SPR 150MG 1ML (N3)
GE3795461	DEPO-CLINOVI.KHP>> FERT SPR 150MG 1ML (N3)
GE9345254	SAYANA EUP>> FERT SPR 104MG .65ML (N3)
GE482286	DEPO-CLINOVIR SPR AMP 150MG 10 1ML
GE10326767	SAYANA BR+>> FERT SPR 104MG .65ML (N3)
GE10280683	SAYANA CC4>> FERT SPR 104MG .65ML (N3)
GE11555442	DEPO-CLINOVIR FERT SPR 150MG 6 1ML
GE11353045	DEPO-CLINOVI.AC9>> FERT SPR 150MG 1ML (N3)
GE17936827	SAYANA EU0>> FERT SPR 104MG .65ML (N3)
GE9762103	SAYANA A4X>> FERT SPR 104MG .65ML (N3)
GE14983668	DEPO-CLINOVI.EUP>> DURCHSTECHFL 150MG 1ML (N3)
GE10472629	SAYANA E-M>> FERT SPR 104MG .65ML (N3)
GE11885575	DEPO-CLINOVI.EUP>> FERT SPR 150MG 6 1ML
GE12735000	DEPO-CLINOVI.ORI>> FERT SPR 150MG 6 1ML
GE13303766	SAYANA CC4>> FERT SPR 104MG 6 .65ML
GE3976628	DEPO-CLINOVI.A4X>> FERT SPR 150MG 1ML (N3)
GE4016821	DEPO PROGEVE.CC4>> DURCHSTECHFL 150MG 1ML (N3)
GE14703537	DEPO-CLINOVI.AC9>> FERT SPR 150MG 6 1ML
GE9819975	DEPO PROGEVE.HC3>> DURCHSTECHFL 150MG 1ML (N3)
GE18990919	DEPO-CLINOVI.KHP>> FERT SPR 150MG 6 1ML
GE16929166	DEPO-CLINOVI.R&G>> DURCHSTECHFL 150MG 1ML (N3)
GE1912126	DEPO PROVERA E-M>> FERT SPR 150MG 1ML (N3)
GE2389035	DEPO PROVERA DOC>> FERT SPR 150MG 1ML (N3)
GE274284	CLINOVIR TABL 400MG 30 (N1)
GE37750	FARLUTAL TABL 100MG 100 (N3)
GE267676	MPA HEXAL TABL 250MG 100 (N3)
GE265463	CLINOVIR TABL 500MG 30 (N1)
GE1093726	FARLUTAL EUP>> TABL 500MG 60 (N2)
GE6255	CLINOVIR TABL 100MG 100 (N3)
GE1888297	FARLUTAL AC9>> TABL 500MG 100 (N3)

Therapy code	Therapy name
GE1020605	FARLUTAL BRA>> TABL 500MG 60 (N2)
GE1001055	FARLUTAL E-M>> TABL 500MG 30 (N1)
GE980288	FARLUTAL E-M>> TABL 500MG 60 (N2)
GE979634	FARLUTAL MTK>> TABL 500MG 30 (N1)
GE966554	FARLUTAL GWL>> TABL 500MG 30 (N1)
GE879654	FARLUTAL EUP>> TABL 500MG 30 (N1)
GE217266	MPA HEXAL TABL 500MG 100 (N3)
GE855179	MPA BETA TABL 500MG 20 (N1)
GE837575	FARLUTAL KHP>> TABL 500MG 30 (N1)
GE890423	FARLUTAL BRA>> TABL 500MG 30 (N1)
GE247973	FARLUTAL TABL 200MG 250
GE198676	FARLUTAL TABL 500MG 30 (N1)
GE81723	CLINOVIR TABL 200MG 50 (N2)
GE709869	CLINOVIR TABL 500MG 100 (N3)
GE1195576	FARLUTAL SUSP ORAL 500MG /5ML 5 100ML
GE12086	FARLUTAL TRINKAMP+I.M 500MG 10 2.5ML (N2)
GE507897	MPA NOURY TABL 500MG 30 (N1)
GE340004	MPA BETA TABL 500MG 100 (N3)
GE12087	FARLUTAL TABL 500MG 50
GE171435	FARLUTAL TABL 200MG 50 (N2)
GE6264	CLINOVIR TABL 500MG 20
GE97973	FARLUTAL SUSP ORAL 500MG /5ML 100ML (N1)
GE1098953	FARLUTAL EUP>> TABL 250MG 60 (N2)
GE405462	MPA HEXAL TABL 250MG 50 (N2)
GE1837100	FARLUTAL AC9>> TABL 500MG 30 (N1)
GE13743807	MPA(MEDROXYPRO)SOH TABL 500MG 100
GE472514	MPA HEXAL TABL 250MG 20 (N1)
GE10649262	MPA(MEDROXYPRO)SOH TABL 500MG 20
GE175903	MPA HEXAL TABL 500MG 50 (N2)
GE129332	FARLUTAL TRINKAMP+I.M 500MG 3 2.5ML (N1)
GE342990	MPA HEXAL TABL 500MG 20 (N1)
GE49848	FARLUTAL TABL 500MG 20
GE342486	FARLUTAL TABL 250MG 60 (N2)
GE116355	FARLUTAL TABL 500MG 100 (N3)
GE324014	FARLUTAL TRINKAMP+I.M 1000MG 3 5ML (N1)
GE208881	CLINOVIR TABL 500MG 60 (N2)
GE870690	FARLUTAL TABL 200MG 60 (N2)
GE98995	FARLUTAL TABL 500MG 60 (N2)
GE37751	FARLUTAL TABL 250MG 40 (N2)
GE260929	CLINOVIR TABL 400MG 60 (N2)
GE6265	CLINOVIR TABL 500MG 50
GE6256	CLINOVIR TABL 250MG 40 (N2)
GE97975	CLINOVIR INJ IM +ORAL 500MG 3.3ML (N1)
GE2389814	FARLUTAL TABL 250MG 200

Table 3 Low dose medroxyprogesterone products in IMRD UK

Drug code	Description
1139941000033118	Provera 10mg tablets (Pfizer Ltd)
1135841000033112	Provera 5mg tablets (Pfizer Ltd)
1134741000033115	Provera 2.5mg tablets (Pfizer Ltd)
3908441000033119	Climanor 5mg tablets (ReSource Medical UK Ltd)
904741000033110	Medroxyprogesterone 10mg tablets
898741000033110	Medroxyprogesterone 2.5mg tablets
895541000033112	Medroxyprogesterone 5mg tablets
2174041000033116	Adgyn Medro 5mg tablets (Kyowa Kirin Ltd)
1136141000033113	Premique Cycle 0.625mg/10mg tablets (Pfizer Ltd)
1136041000033114	Premique 0.625mg/5mg tablets (Pfizer Ltd)
3192841000033115	Conjugated oestrogens 300microgram / Medroxyprogesterone 1.5mg modified-release tablets
3192741000033113	Conjugated oestrogens 625microgram / Medroxyprogesterone 5mg tablets
3192541000033117	Estradiol valerate 2mg / Medroxyprogesterone 5mg tablets
3192441000033118	Estradiol valerate 1mg / Medroxyprogesterone 5mg tablets
3192341000033112	Estradiol valerate 1mg / Medroxyprogesterone 2.5mg tablets
3076041000033112	Premique Low Dose 0.3mg/1.5mg modified-release tablets (Pfizer Ltd)
755141000033111	Improvera Tablets
2215441000033119	Indivina 2mg/5mg tablets (Orion Pharma (UK) Ltd)
2215341000033113	Indivina 1mg/5mg tablets (Orion Pharma (UK) Ltd)
2215241000033115	Indivina 1mg/2.5mg tablets (Orion Pharma (UK) Ltd)
1468741000033119	Tridestra tablets (Orion Pharma (UK) Ltd)

Table 4 Low dose medroxyprogesterone products in IDA Germany

Therapy code	Therapy name
GE286116	G-FARLUTAL TABL 5MG 100 (N3)
GE95399	CLINOFEM TABL 10MG 60 (N2)
GE1318135	GESTAPOLAR TABL 5MG 90 (N3)
GE1099836	CLINOFEM TABL 5MG 200
GE260926	CLINOFEM TABL 5MG 120 (N3)
GE34496	CLINOFEM TABL 2.5MG 84 (N3)
GE248358	CLINOFEM TABL 5MG 12 (N1)
GE6261	CLINOFEM TABL 5MG 60 (N2)
GE91281	CLINOFEM TABL 5MG 90 (N3)
GE972490	CLINOFEM TABL 10MG 30 (N1)
GE12954	G-FARLUTAL TABL 5MG 20 (N1)
GE849532	GESTAPOLAR TABL 10MG 36 (N2)
GE820931	GESTAPOLAR TABL 5MG 30 (N1)
GE183335	CLINOFEM TABL 2.5MG 100 (N3)
GE664266	G-FARLUTAL TABL 5MG 60 (N2)
GE610583	CLINOFEM TABL 10MG 100 (N3)
GE456362	GESTAPOLAR TABL 2.5MG 30 (N1)
GE417280	G-FARLUTAL TABL 5MG 50 (N2)
GE414614	MPA GYN TABL GYN 5MG 30 (N1)
GE157034	MPA GYN TABL GYN 5MG 100 (N3)
GE411707	GESTAPOLAR TABL 5MG 36 (N2)
GE6257	CLINOFEM TABL 5MG 20 (N1)
GE391731	GESTAPOLAR TABL 2.5MG 90 (N3)
GE380912	GESTAPOLAR TABL 5MG 12 (N1)
GE9677819	MPA(MEDROXYPRO)SOH TABL GYN 5MG 60
GE9397484	MPA(MEDROXYPRO)SOH TABL GYN 5MG 100
GE9366797	MPA(MEDROXYPRO)SOH TABL GYN 5MG 30
GE46414	CLINOFEM TABL 5MG 36 (N2)
GE311742	CLINOFEM TABL 2.5MG 28 (N1)
GE296642	MPA GYN TABL GYN 5MG 60 (N2)
GE95364	INDIVINA TABL 1/2.5 28 (N1)
GE1092727	CLIMAREST PLUS KO.CYC.0.6/5 (N1)
GE1091238	CLIMAREST PLUS KOMB.0.6/2.5 (N1)
GE1072918	CLIMAREST PLUS KO.CYC .6/10 3 (N3)
GE1072442	CLIMAREST PLUS KOMB.0.6/5 (N1)
GE90089	INDIVINA TABL 2/5 28 (N1)
GE81724	INDIVINA TABL 2/5 84 (N2)
GE81721	INDIVINA TABL 1/5 84 (N2)
GE182823	INDIVINA TABL 1/5 28 (N1)
GE165782	CLIMAREST PLUS KO.CYC.0.6/5 3 (N3)
GE421897	CLIMAREST PLUS KO.CYC .6/10 (N1)
GE65330	CLIMOPAX DR.0.625/2.5 28 (N1)
GE155144	CLIMOPAX DRAG 0.625/5 28 (N1)
GE140154	INDIVINA TABL 1/2.5 84 (N2)
GE60747	CLIMOPAX DR.0.625/2.5 84 (N2)
GE339998	CLIMAREST PLUS KOMB.0.6/5 3 (N3)
GE339643	CLIMAREST PLUS KOMB.0.6/2.5 3 (N3)
GE293282	CLIMOPAX DRAG 0.625/5 84 (N2)
GE1637136	VITRENA TABL 28 (N1)
GE1604353	SISARE ALT TABL 28-- 28 (N1)
GE1345186	VITRENA TABL 84 (N3)
GE1295927	CYCLOPOLAR TABL 21 (N1)
GE1024032	OSMIL ALT FILMTABL 28 (N1)
GE22502	OSMIL (NVR) FILMTABL 84
GE247236	ESTRAFEMOL KAPS MAG.RES 78 (N3)
GE1019449	OSMIL ALT FILMTABL 84 (N3)
GE686811	PROCYCLO ALT TABL 21-- 21 (N1)

Therapy code	Therapy name
GE676472	PROCYCLO ALT TABL 21-- 63 (N3)
GE81683	GIANDA KAPS MAG.RES 26 (N1)
GE163265	CLIMOPAX DRAG CYCLO 84 (N2)
GE60943	OSMIL (NVR) FILMTABL 28 (N1)
GE402938	SISARE ALT TABL 21-- 21 (N1)
GE374946	PROCYCLO (OR/) TABL 21-- 21 (N1)
GE138854	SISARE ALT TABL 21-- 63 (N2)
GE371825	SISARE ALT TABL 28-- 84 (N2)
GE11030847	SISARE (MSD) TABL 21-- 63 (N2)
GE5414	CLIMOPAX DRAG CYCLO 28 (N1)
GE350776	CYCLOPOLAR TABL 63 (N3)
GE344977	PROCYCLO (OR/) TABL 21-- 63 (N2)
GE117044	ESTRAFEMOL KAPS MAG.RES 26 (N1)
GE313788	GIANDA KAPS MAG.RES 78 (N2)

Table 5 Meningioma codes in IMRD UK

Clinical code	Description
290621015	Cerebral meningioma
290627016	Spinal meningioma
291864015	Meningiomatosis
291867010	[M]Haemangiopericytic meningioma
291869013	[M]Meningioma NOS
305341000006116	[M]Angioblastic meningioma
305471000006116	[M]Angiomatous meningioma
307601000006115	[M]Diffuse meningiomatosis
308681000006111	[M]Fibrous meningioma
309591000006118	[M]Haemangioblastic meningioma
312341000006110	Meningioma
312361000006114	[M]Meningioma, malignant
312401000006116	Meningotheliomatous meningioma
313261000006111	[M]Multiple meningiomatosis
315731000006110	[M]Psammomatous meningioma
317301000006111	[M]Syncytial meningioma
317741000006114	Transitional meningioma
932021000006117	Meningioma
2506801000006116	Fibrous meningioma
3074831000006119	Haemangioblastic meningioma
3118991000006116	Psammomatous meningioma
3159251000006119	Multiple meningiomas
3621181000006115	Syncytial meningioma
3701731000006116	Angiomatous meningioma
4391181000006115	Cerebellopontine angle meningioma
5353811000006116	Malignant meningioma of optic nerve sheath
5353901000006113	Meningioma of optic nerve sheath
5911501000006115	Intracranial meningioma
5911511000006117	Meningioma of brain
5911521000006113	Cranial meningioma
7322431000006116	Total excision of meningioma
7702501000006115	Malignant meningioma of meninges of brain
7835561000006119	Primary malignant meningioma
14056451000006116	Benign meningioma
14852231000006110	Cerebral meningioma
15042551000006110	Primary malignant meningioma of optic nerve sheath

Table 6 Meningioma codes in IDA Germany

WHO ICD 10 code	Description
C70.0	Malignant neoplasm of cerebral meninges
C70.1	Malignant neoplasm of spinal meninges
C70.9	Malignant neoplasm of meninges, unspecified
D32.0	Benign neoplasm of cerebral meninges
D32.1	Benign neoplasm of spinal meninges
D32.9	Benign neoplasm of meninges, unspecified