



02 June 2014
EMA/331678/2014

EMA Self-Controlled Case Study of Fluoroquinolones and Retinal Detachment in THIN – Technical Report

Post-authorisation study using The Health Improvement Network (THIN) data.

Project roles	Project lead: Julie Durand Clinical lead: Kevin Blake Statistical lead: Jim Slattery Data extraction in THIN: Julie Durand / Jim Slattery
Active substances	Fluoroquinolones: ciprofloxacin, enoxacin, flumequine, levofloxacin, lomefloxacin, moxifloxacin, norfloxacin, ofloxacin, pefloxacin, prulifloxacin, rufloxacin. Other quinolones: cinoxacin, nalidixic acid, pipemidic acid, oxolinic acid, rosoxacin. ATC code J01M
Study initiator	EMA
Results	2584 patients with both a retinal detachment and an exposure to fluoroquinolones between 1990 and 2012 were included in the study. 15 patients had an episode of retinal detachment during exposure to fluoroquinolones. The adjusted baseline model does not show a significantly raised risk of retinal detachment during exposure – RR= 1.439 (95%CI 0.861 to 2.404) Sensitivity analyses did not change this conclusion.
Author	Jim Slattery



1. Rationale and background

A nested case-control study published by Etminan et al.¹ suggested a possible association of oral fluoroquinolone intake with retinal detachment. A further study by Chui et al. (as then unpublished, a revised version now published)² using a self-controlled case series (SCCS) design in patients in Hong-Kong and Taiwan did not find an association and did not show a trend in favour of such an association. Thus there is conflicting evidence.

Additional evidence includes some case reports which have been published mentioning a possible relation between fluoroquinolone intake and development of retinal detachment. Searches of Member States' national databases and the EudraVigilance database have revealed a number of spontaneous case reports associating systemic fluoroquinolone intake with retinal detachment (MedDRA PT). Further evidence for fluoroquinolones to cause retinal damage arises from several non-clinical studies with cats and rabbits clearly showing dosage related retinal toxicity.

A signal of risk of retinal detachment in association with use of systemic fluoroquinolones was raised by Germany – BfArM (EPITT Ref No: 15914). At its 29 – 31 October 2012 meeting, the PRAC considered that ocular toxicity with (fluoro)quinolones should be closely monitored. In addition BfArM reviewed the study by Chui et al and raised some concerns about the adequacy of the methods to detect the potential adverse drug reaction.

The PRAC recommended at its April 2013 meeting that the EMA perform a second SCCS study on (fluoro)quinolones and retinal detachment in The Health Improvement Network (THIN) database of electronic health records, in collaboration with the PRAC Rapporteur. The study should incorporate measures to investigate possible weaknesses in the design of the previous SCCS study.

This study described here is in response to that request.

2. Research question and objectives

The underlying research question in PRAC's request was to determine whether there is a risk of retinal detachment in patients treated with systemic (fluoro)quinolones.

2.1. Objectives

- Investigate a potential association between (fluoro)quinolones and retinal detachment.
- Determine whether discrepancies between the studies by Etminan [1] and Chui [2] can be explained by failure of assumptions underlying the basic SCCS model.

3. Research methods

3.1. Study design

Self-controlled case series design in THIN. The SCCS methodology can be applied to those patients who have experienced the outcome of interest and been exposed to risk factor(s) over some period of

¹ Etminan M, Forooghian F, Brophy JM, Bird ST, Maberley D. Oral fluoroquinolones and the risk of retinal detachment. JAMA. 2012;307(13):1414-9.

² Chui CS, Man KK, Cheng CL, Chan EW, Lau WC, Cheng VC, Wong DS, Yang Kao YH, Wong IC. An investigation of the potential association between retinal detachment and oral fluoroquinolones: a self-controlled case series study. J Antimicrob Chemother. 2014 May 15. pii: dku145. [Epub ahead of print].

time. The method considers how frequently the outcome occurs during exposure compared to non-exposed times.

3.2. Setting

For this study we have considered all patients in THIN who had a code for RD and for a FQ in the interval from 1 Jan 1990 to 31 Dec 2012³. The study period began once a patient has attended a THIN practice for at least one year and any record of RD during this screening period resulted in exclusion from the study.

- Patient start date = later of registration date + 1 year or 1 Jan 1990.
- the practice's computerisation date⁴, the practice's Vision date⁵ or the practice's date of acceptable mortality reporting⁶, was be used instead of registration date if they impinged on the study period.
- Patient end date = earlier of patient death/leaving practice, practice last collection date, 31 Dec 2012.

3.3. Variables

- Read Codes⁷ for retinal detachment are included at Annex 1.
- Prescribed systemic (fluoro)quinolones are included at Annex 2.

The risk period was calculated using information on the prescribed quantity and the dosage regimen from the THIN dosage file. The primary analysis considered the risk period to be only those days when the patient was judged to be taking the FQ. When there was insufficient information to calculate the risk period it was imputed using the modal calculated value for the particular product prescribed. A sensitivity analysis used the minimum and maximum credible values for each product and the number and proportion of imputed values has been reported.

Other risk factors for retinal detachment included in the model:

1. Traumatic events which encompassed cataract or other ocular surgery, eye infections, ocular trauma and head or neck injuries
2. Exposure to corticosteroids
3. Age
4. Season

3.4. Data sources

The THIN General Practitioner database version January 2013.

3.5. Study size

All patients that qualify under conditions of 3.2.

³ Depends on data available at time of analysis

⁴ Date when the practice first started issuing prescriptions from the computer every day for three consecutive months.

⁵ Date that the practice started using the Vision practice management software to record consultations.

⁶ Year from which the practice is deemed to be reporting all-cause mortality based on predicted numbers of deaths derived from National statistics given the practice's demographics.

⁷ <http://www.connectingforhealth.nhs.uk/systemsandservices/data/uktc/readcodes>

3.6. Data management

Data extraction and cleaning was performed by EMA staff. Preparation of the dataset was done in SAS Enterprise Guide.

3.7. Data analysis

The primary analysis was carried out both in SAS and in STATA using the methods available from the Open University. <http://statistics.open.ac.uk/sccs/sas.htm>.

3.8. Measures to address concerns with previous SCCS study

The following points arose in the BfArM assessment and have been addressed in consultation with the Rapporteur. The italicised comments are initial responses from EMA.

1. Multiple events of retinal detachment might not represent independent events, but might instead be recurrent events or unresolved first events. It should therefore be considered to include only first events or to group cases of retinal detachment occurring within a certain time frame (e.g. 3-6 months) into one event.
Although methods have been proposed for analysing censoring events in SCCS designs these make some additional assumptions and levels of experience with these methods are currently low. It was proposed to stay with conventional methods for analysis of RD but develop a method to discriminate new events from multiple coding of single events.
2. Post-event exposure to FQs might not be independent from the event, but might be due to complications of surgery. It should therefore be considered to conduct analysis to account for perturbed post-event exposures.
Whitaker et al.⁸ recommend under these circumstances that a short pre-exposure risk period be included in the model to allow for the association between outcome and exposure. The length of period should be determined in consultation with consultants treating RD.
3. Exclusion of patients with ocular trauma or appropriate sensitivity analyses for such patients. This includes patients with head and neck injuries, but also patients with ocular surgeries other than for retinal detachment, e.g. cataract surgery.
Codes for ocular trauma will be identified. The way in which ocular trauma could affect the calculation is unclear. For instance it might increase the risk of both RD and FQ use or it might not increase the chance of FQ use but could be an additive risk factor with FQ exposure for RD. Traumatic events were included in the model.
4. Exclusion of patients experiencing eye infections due to higher risk for retinal detachment and possible exposure to FQs.
These events were adjusted for in the model.
5. Exclusion of patients with intravitreal injections, endocarditis, tuberculosis, HIV (due to CMV infections) and liver abscess due to their increased risk of eye infections.
As above.
6. Sensitivity analyses taking into account seasonal effects. Antibiotic exposure might be seasonal in the UK, as respiratory infections might be more common in the winter.
The SCCS model will be calculated with a seasonal component. If feasible a preliminary analysis will be done in a wider THIN subset to examine the seasonality of antibiotic exposure and the precise coding determined by this model.

⁸ Whitaker HJ, Farrington CP, Spiessens B, Musonda P. Tutorial in Biostatistics: The self-controlled case series studies. *Statist Med* 2005; 0:1-31.

7. As the association between FQs and tendinopathy is influenced by intake of corticosteroids, exposure to corticosteroids may also be considered in the analyses.
Exposure to corticosteroids was included as a possible confounding factor in the model.
8. Analyses for different case definitions e.g. central serous retinal detachment vs. rhegmatogenous, if adequate information is available in THIN.
Discrimination of these types of case will be considered but data are unlikely to be available. Note that there is no specific Read code for rhegmatogenous retinal detachment.
9. Analysis of the effect of different doses or cumulative exposure.
If doses can be reliably identified this will be attempted.
10. Sensitivity analyses for risk periods should also account for wider risk periods than 28 days, e.g. 3 months.
These analyses will be done.

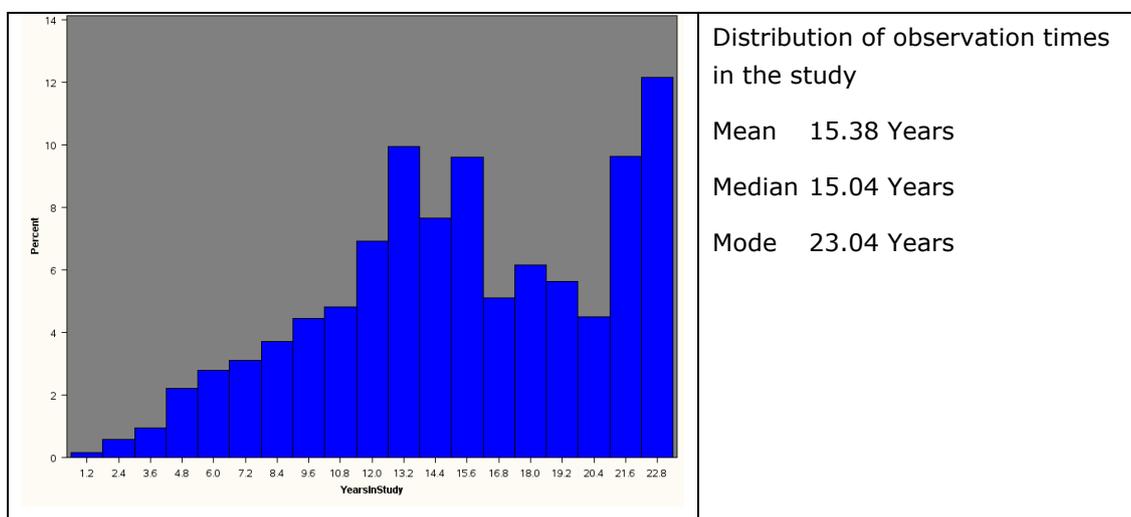
3.9. Limitations of the research methods

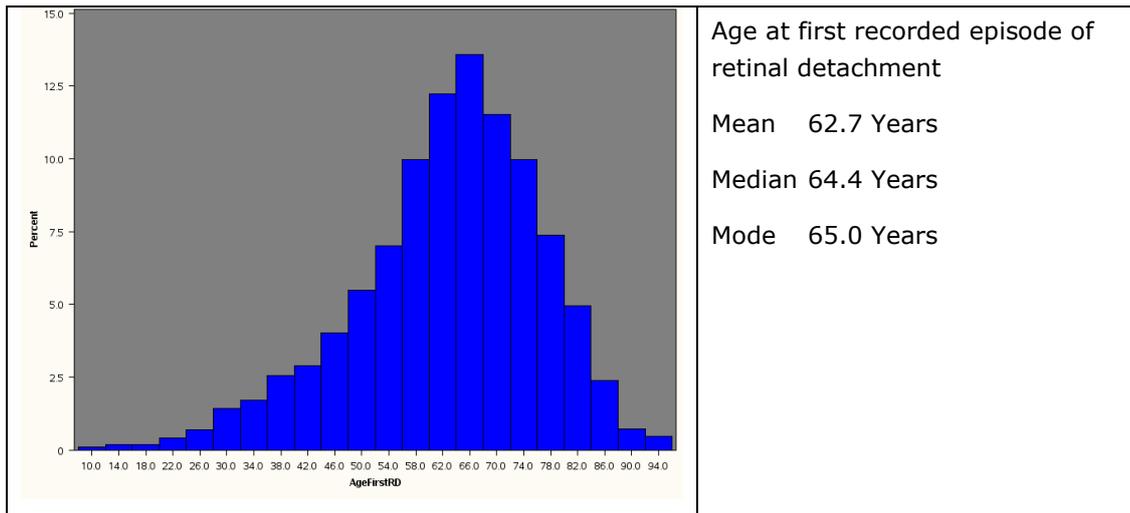
Data are restricted to a subset of UK general practitioners' practices. There is no validation of diagnoses of retinal detachment based on medical records. Time variables (time to onset) may require assumptions.

4. Description of population and exposure to study drug

4.1. Patients

The study based on a period from 01 Jan 1990 to 31 Dec 2012 includes 2584 patients. 1371 (53%) were male and 1213 (47%) were female.





4.2. Prescriptions of Fluoroquinolones

During the study period the patients received 6770 prescriptions for fluoroquinolones of which 85% were ciprofloxacin.

CIPROFLOXACIN	5748
OFLOXACIN	435
NORFLOXACIN	279
LEVOFLOXACIN	159
NALIDIXIC ACID	79
MOXIFLOXACIN	66
TEMAFLOXACIN	4
TOTAL	6770

5. Outcome events

5.1.1. Preliminary assessment

The codes used to identify potential episodes of retinal detachment are shown in annex 1. A complication that emerged from the initial data extraction was that these codes are used repetitively once a patient has had an initial episode. Most patients, 1982/2584 (77%) had only a single date recorded for these codes – although usually multiple codes – but the remaining 602 had both multiple codes and multiple dates which raised the question of identifying when repeat dates indicated new events. Inspection of the intervals between dates revealed that these were frequently periods likely to correspond to routine review periods: 3 months, 6 months or whole numbers of years. This precluded any formal rule assuming events beyond a fixed time threshold as new events. Hence we requested any additional notes that had been entered into the database for these events and manually reviewed for new events. The list of events was reviewed by three investigators (JD, JS and KB) and a meeting was held to resolve disagreements. Most repeat codes were found to be routine review but another cause could be discussion or implementation of follow-up procedures such as removal of oil tamponade.

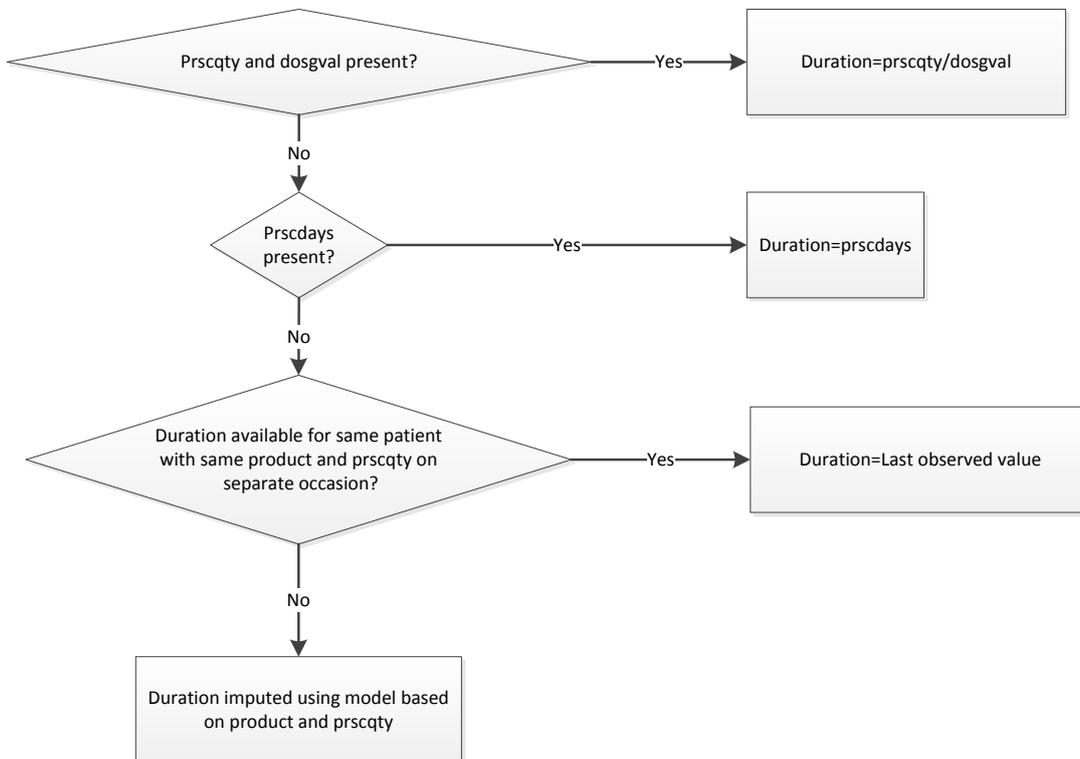
5.1.2. Certain events

The 2584 patients included in the study had 2598 RD events adjudicated as certain and a further 86 that were considered to be possible. The primary analysis is based on the certain events.

6. Exposure assessment

When there was insufficient information to calculate the risk period it was imputed using the modal calculated value for the particular product prescribed. A sensitivity analysis used the minimum and maximum credible values for each product and the number and proportion of imputed values have been reported.

The process of imputation is illustrated in the diagram below. Note that antibiotic exposure is assumed to occur in discrete episodes and no assumption is made that episodes in close proximity but not overlapping are continuous.



STEP 1. When 'dosgval' (calculated daily dosage) and 'prscqty' (quantity prescribed) are valid we calculate the duration as $prscqty/dosgval$. Our initial work on a set of 45860 prescriptions shows that this gives believable values for 41% of prescriptions. The second option is to use 'prscdays' variable (duration of the prescription in days). This allows a further 5% of prescription durations to be ascertained. Thus there are 54% of durations undetermined. Thus the main difficulty with determining duration is the intermittent recording of dosgval.

STEP 2. We then search within patient for known durations for specific products. When the same product and prscqty is present with a missing duration the missing value is imputed on the basis of the last recorded non-missing value for that patient with the specific product and prscqty.

STEP 3. Tabulation of the durations that can be determined in the first two steps shows very pronounced frequency peaks. The highest of these is around 28 days followed by 5, 7 and 56 days. There are also small duration peaks around 10, 14 and 100 days. For imputation of durations that cannot be based on individual patient information we assume that the intended duration will be one of these values and have found that the product code and the prscqty appear on many occasions to discriminate the values with good accuracy. Non-zero prscqty is recorded in 99.5% of prescriptions.

We first recode the observed durations as follows:

5 or fewer days	5 Days
6 to 9 days	7 Days
10 to 20 days	14 Days
21 to 40 days	28 Days
41 to 74 days	56 days
More than 74 days	100 Days

Tabulation of these categories against the generic medicine name and the prscqty variables suggests that imputation by choosing the modal category for each combination of these variables will give the correct category in 78% of cases where imputation is possible. When two categories have equal counts the marginal counts are examined and the more common category over the entire dataset is chosen. On our test dataset this allowed imputation of 18031 of the remaining 20616 missing durations (87.5%).

STEP 4. The process for imputing the remaining missing values involves two parts. If the product has non-missing values then the duration is filled in by adopting the value for the closest value of prscqty. If all the durations for the product are missing the value chosen is the modal value for the overall marginal distribution, 28 days.

7. Results

7.1. Unadjusted analysis

Only 15 patients had a retinal detachment during exposure to fluoroquinolones. The total numbers of events and observed person-days by FQ exposure are shown below:

	Duration (days)	Retinal Detachment
Fluoroquinolone exposure		
No	14467169	2583
Yes	52074	15
Total (ALL)	14519243	2598

The unadjusted risk ratio can be calculated as the observed events while exposed to fluoroquinolones divided by the expected events. The expected events conditional on the number of events per patient is given by $Expected = \sum_{Patients} (Exposure \times Events / Duration)$

This yields a ratio of $15/10.40 = 1.44$.

7.2. Covariates for adjusted analysis

7.2.1. Age

Age was fitted in the model in 20 year age bands. The distribution of events and time under study over age groups is shown below. Initially we fitted 5 year age bands but discovered that the wider groupings made no substantive difference to the estimates of the coefficients for other variables in the model.

The numbers of events and person days in each 20 year age band were:

	Duration (days)	Retinal Detachment
Age Group		
0 to 19	92604	13
20 to 39	1073352	178
40 to 59	4815874	768
60 to 79	7232309.33	1419
80+	1305103.67	220
Total	14519243	2598

7.2.2. Concomitant medication

The only concomitant medications considered were corticosteroids. The codes used to identify corticosteroid treatment are in Annex 3. Where the data allowed the period of exposure was calculated directly. Otherwise it was assumed to be 28 days for systemic and 1.25 days for ocular, the modal values. For the baseline model risk was assumed to extend only to days of current exposure.

There were 23582 prescriptions of corticosteroids to 1706 of the patients during the study. 8438 (36%) were recorded as ocular administration and 15144 (64%) as systemic.

	Duration (days)	Retinal Detachment
Corticosteroid		
No	14058566	2459
Yes	460677	139
Total	14519243	2598

Unadjusted relative risk $139/94.17 = 1.48$

If we split by route of administration, for ocular corticosteroids the exposure times are:

	Duration (days)	Retinal Detachment
Ocular Corticosteroid		

No	14338802	2526
Yes	180441	74
Total	14519243	2598

And the unadjusted relative risk is $74/37.2 = 1.99$

For systemic administration:

	Duration (days)	Retinal Detachment
Systemic Corticosteroid		
No	14178533	2528
Yes	340710	70
Total	14519243	2598

And the unadjusted relative risk is $70/68.7 = 1.02$

Note that the figures do not total to all corticosteroid administration as some coadministration occurred.

7.2.3. Traumatic events

The codes searched for relevant traumatic events are shown in annex 4. A code was included if the event concerned might possibly be related to retinal detachment and also to fluoroquinolones exposure. 519 codes were initially considered and 439 were selected. The frequency of these in the dataset, grouped into broader categories, is shown below:

Risk group	Frequency	Percent
cataract surgery	1467	62.48
other ocular surgery - 2 - vitreous body	419	17.84
other eye infection	284	12.10
head & neck injury	77	3.28
intravitreal injection (see also drug codes)	51	2.17
ocular trauma	29	1.24
other ocular surgery - 1 - retinal	11	0.47
endophthalmitis	9	0.38
other ocular surgery - 3 - traumatic	1	0.04

The standard risk period following a traumatic event was taken as 30 days and the events and durations summed over all patients are shown below.

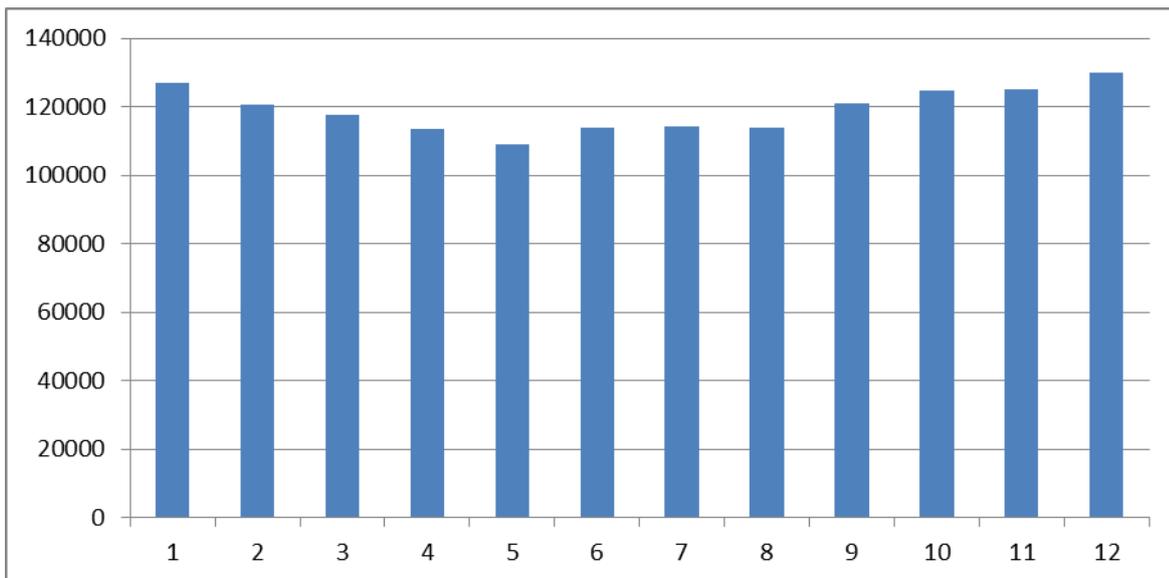
	Duration (days)	Retinal Detachment
Traumatic Event		
No	14457647	2476

Yes	61596	122
Total (ALL)	14519243	2598

Relative risk estimate $122/12.23 = 9.98$

7.2.4. Season

The seasonality of fluoroquinolone exposure was examined using all prescriptions of FQ over the study period. The counts of prescriptions by month – standardised to 30 days – is shown below:



This rather limited seasonal variation was reflected in the model using two periods April-August – labelled as 'Summer' – and September-March.

The events in these periods are shown below:

	Duration (days)	Retinal Detachment
Summer		
No	8441159	1426
Yes	6078084	1172
Total	14519243	2598

The unadjusted relative risk showed a slight excess over the summer, $1172/1087.4 = 1.077$

7.3. Results of baseline model

The baseline model considers patients to have a risk associated with FQ only when immediately exposed. The exposure periods were based on direct information or on imputation as described in section 6. All concomitant medications were assumed to have a risk only during current exposure and all traumatic events carried a risk for 30 days. We adjusted for the possibility that fluoroquinolones might be avoided in the period following a retinal detachment using a risk period of 15 days.

The results of this analysis are shown below.

	IRR	Std. Err.	z	P>z	[95% Conf.Interval]	
Fluoroquinolone exposure	1.439	0.377	1.390	0.165	0.861	2.404
Pre FQ exposure	1.008	0.234	0.030	0.974	0.639	1.589
Corticosteroids	1.376	0.147	2.980	0.003	1.115	1.696
Traumatic events	10.801	1.084	23.720	0.000	8.872	13.148
Summer	1.145	0.045	3.420	0.001	1.060	1.237
Age 0 to 19	1.751	0.742	1.320	0.186	0.763	4.020
Age 20 to 39	2.471	1.102	2.030	0.042	1.031	5.924
Age 40 to 59	3.691	1.670	2.890	0.004	1.521	8.959
Age 60 to 79	2.433	1.130	1.910	0.056	0.979	6.045

7.4. Inclusion of RD events adjudicated as 'possible'

Of the 86 retinal detachment events evaluated as 'possible' none fell within a period of fluoroquinolone exposure. Thus inclusion of these events very slightly reduced the parameter estimates for FQ. The baseline model gives the following results.

	IRR	Std. Err.	z	P>z	[95% Conf.Interval]	
Fluoroquinolone exposure	1.381	0.362	1.230	0.218	0.827	2.307
Pre FQ exposure	0.965	0.224	-0.150	0.878	0.612	1.522
Corticosteroids	1.382	0.144	3.110	0.002	1.127	1.695
Traumatic events	10.711	1.052	24.140	0.000	8.835	12.985
Summer	1.151	0.045	3.610	0.000	1.066	1.242
Age 0 to 19	1.777	0.750	1.360	0.173	0.777	4.064
Age 20 to 39	2.479	1.099	2.050	0.041	1.039	5.912
Age 40 to 59	3.701	1.664	2.910	0.004	1.533	8.933
Age 60 to 79	2.505	1.156	1.990	0.047	1.014	6.190

7.5. Other sensitivity analyses

A number of other analyses were run to check the baseline analysis. The estimated risk ratios for fluoroquinolone exposure from these are shown in the table. Where a dichotomous variable was altered for the analysis the risk ratio is also shown for that variable. All analyses also adjusted for the other variables in the baseline model (risk ratios not shown). The fluoroquinolones estimates were smaller than the baseline analysis in all these additional analyses and were not statistically significant.

Sensitivity Analysis		IRR	[95% Conf.Interval]	
Age in 5 year intervals				
	Fluoroquinolone exposure	1.426	0.853	2.384
15 day risk for traumatic events				
	Fluoroquinolone exposure	1.435	0.859	2.399

	Traumatic events	17.83 2	14.494	21.939
Additional 7 day FQ risk				
	Fluoroquinolone exposure	1.357	0.910	2.023
Additional 15 days of risk with corticosteroids				
	Fluoroquinolone exposure	1.175	0.825	1.675
	Corticosteroids	1.376	1.115	1.697
Exclusion of serous events	Fluoroquinolone exposure	1.438	0.8450	2.4473

Annexes

7.6. Annex 1 - Read Codes used for retinal detachment

medcode	description	Frequency in study
FyuF400	[X]Other retinal detachments	2
7251311	Arruga string operation for detached retina	
7251200	Buckling of sclera and implant however further qualified	1
7251300	Buckling of sclera and local or encircling explant HFQ	
7251400	Buckling of sclera NEC	
7251z00	Buckling operation for attachment of retina NOS	2
7251.00	Buckling operations for attachment of retina	9
F424100	Central serous retinopathy	166
7277200	Delamination of epiretinal fibrovascular membrane	
7273500	Drainage of subretinal fluid through retina	1
7252200	Drainage of subretinal fluid through sclera	2
7270700	Internal tamponade of retina using air	
7270600	Internal tamponade of retina using gas	8
7270800	Internal tamponade of retina using liquid	
7270900	Internal tamponade of retina using oil	3
7271100	Laser photocoagulation of retina for detachment	51
F410300	New partial retinal detachment with giant tear defect	1
F410200	New partial retinal detachment with multiple defects	
F410400	New partial retinal detachment with retinal dialysis	
F410100	New partial retinal detachment with single defect	
7277.00	Operations on retinal membrane	
7277z00	Operations on retinal membrane NOS	
F41y.00	Other forms of retinal detachment	6
7273z00	Other operation on retina NOS	
7273.00	Other operations on retina	
F41yz00	Other retinal detachments NOS	8
7251y00	Other specified buckling operation for attachment of retina	
7271y00	Other specified photocoagulation of retina for detachment	86
7277000	Peel of epiretinal (fibroglial) membrane	
7271.00	Photocoagulation of retina for detachment	75
7271z00	Photocoagulation of retina for detachment NOS	137
F410600	Recent subtotal retinal detachment	1
F410500	Recent total retinal detachment	1
7270A00	Removal of internal tamponade agent from vitreous body	
7277500	Removal of subretinal membrane NEC	
7277400	Removal of subretinal vascular membrane	
7273300	Reposition plombage for detachment	
F413400	Retinal break	16
F41z.00	Retinal detachment NOS	1038

F410z00	Retinal detachment with defect NOS	7
F410.00	Retinal detachment with retinal defect	20
F41..00	Retinal detachments and defects	563
F424z00	Retinal layer separation NOS	
F424400	Retinal pigment epithelial detachment	
F424300	Retinal pigment epithelium haemorrhagic detachment	
F424200	Retinal pigment epithelium serous detachment	
F41..11	Retinal tears	382
7279400	Retinopexy NEC	
7279000	Retinopexy using cryotherapy	
7279100	Retinopexy using diathermy	
7279200	Retinopexy using mechanical tacks	
7279300	Retinopexy using tissue adhesive	
7251.11	Scleral buckling for attachment of retina	4
7277300	Segmentation of epiretinal fibrovascular membrane	
F424.00	Separation of retinal layers	
F412.00	Serous retinal detachment	13
F41y000	Traction retinal detachment	12
F410000	Unspecified retinal detachment with retinal defect	3
F424000	Unspecified retinal layer separation	
7270B00	Vitrectomy using anterior approach	
7270411	Vitrectomy using pars plana approach	
7271000	Xenon photocoagulation of retina for detachment	

7.7. Annex 2 - Systemic (fluoro)quinolones

multilexeid	bnfcode1	atc	genericname	formulation	strength	units
88254998	05.01.12.00	J01M A12	LEVOFLOXACIN iv inf 500mg/100ml	intravenous infusion	500	mg/100mL
91802990	05.01.12.00	J01M A12	LEVOFLOXACIN iv inf 500mg/100ml	intravenous infusion	500	mg/100mL
91896990	05.01.12.00	J01M A12	LEVOFLOXACIN iv inf 500mg/100ml	intravenous infusion	500	mg/100mL
82286998	05.01.12.00	J01M A14	MOXIFLOXACIN 400mg/250mL inf	intravenous infusion	400	mg/250mL
83926998	05.01.12.00		OFLOXACIN oral liq			
84062998	05.01.12.00	J01M A02	CIPROFLOXACIN IN GLUCOSE 5% inf 400mg/200ml	intravenous infusion	400	mg/200mL
84063998	05.01.12.00	J01M A02	CIPROFLOXACIN IN GLUCOSE 5% inf 200mg/100ml	intravenous infusion	200	mg/100mL

84350998	05.01.12.00	J01M A02	CIPROFLOXACIN oral liq	oral suspension	5	g/100mL
84614998	05.01.12.00	J01M A14	MOXIFLOXACIN soln for inf 400mg/250ml	intravenous infusion	400	mg/250mL
84864998	05.01.12.00	J01M A01	OFLOXACIN 100mg/50mL i-v inf	intravenous infusion	100	mg/50mL
84865998	05.01.12.00	J01M A01	OFLOXACIN inf 200mg/100ml	intravenous infusion	200	mg/100mL
87678998	05.01.12.00	J01M A02	CIPROFLOXACIN 2mg/mL inf 200mL	intravenous infusion	400	mg/200mL
87679998	05.01.12.00	J01M A02	CIPROFLOXACIN 2mg/mL inf 100mL	intravenous infusion	200	mg/100mL
87680998	05.01.12.00	J01M A02	CIPROFLOXACIN 2mg/mL inf 50mL	intravenous infusion	100	mg/50mL
87681998	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE 0.9% inf 400mg/200ml	intravenous infusion	400	mg/200mL
87682998	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE 0.9% inf 200mg/100ml	intravenous infusion	200	mg/100mL
87683998	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE 0.9% inf 100mg/50ml	intravenous infusion	100	mg/50mL
88239997	05.01.12.00	J01M A11	GREPAFLOXACIN 600mg tablets	tablets	600	mg
88239998	05.01.12.00	J01M A11	GREPAFLOXACIN 400mg tablets	tablets	400	mg
88244997	05.01.12.00	J01M A11	GREPAFLOXACIN tabs 600mg	tablets	600	mg
88244998	05.01.12.00	J01M A11	GREPAFLOXACIN tabs 400mg	tablets	400	mg
88267997	05.01.12.00	J01M A12	LEVOFLOXACIN FC tab 500mg	tablets	500	mg
91854990	05.01.12.00	J01M A12	LEVOFLOXACIN FC tab 500mg	tablets	500	mg
91902990	05.01.12.00	J01M A12	LEVOFLOXACIN FC tab 500mg	tablets	500	mg

88267998	05.01.12.00	J01M A12	LEVOFLOXACIN FC tab 250mg	tablets	250	mg
91857990	05.01.12.00	J01M A12	LEVOFLOXACIN FC tab 250mg	tablets	250	mg
91903990	05.01.12.00	J01M A12	LEVOFLOXACIN FC tab 250mg	tablets	250	mg
89122998	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE 0.9% inf 2mg/ml	intravenous infusion	400	mg/200mL
89232998	05.01.12.00	J01M A02	CIPROFLOXACIN IN GLUCOSE 5% inf 400mg/200ml	intravenous infusion	400	mg/200mL
89356998	05.01.12.00	J01M A14	MOXIFLOXACIN 400mg tablets	tablets	400	mg
89361998	05.01.12.00	J01M A14	MOXIFLOXACIN tabs 400mg	tablets	400	mg
91225998	05.01.12.00	J01M A02	CIPROFLOXACIN 2mg/mL inf 200mL	intravenous infusion	200	mg/100mL
91255997	05.01.12.00		SPARFLOXACIN tabs 100mg		100	mg
91255998	05.01.12.00		SPARFLOXACIN tabs 200mg		200	mg
91256997	05.01.12.00		SPARFLOXACIN tabs 100mg		100	mg
91256998	05.01.12.00		SPARFLOXACIN tabs 200mg		200	mg
91764990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
91765990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg
81203998	05.01.12.00	J01M A12	LEVOFLOXACIN 500mg/100mL inf	intravenous infusion	500	mg/100mL
88249998	05.01.12.00	J01M A12	LEVOFLOXACIN 500mg/100mL inf	intravenous infusion	500	mg/100mL
81122998	05.01.12.00	J01M A12	LEVOFLOXACIN 500mg tablets	tablets	500	mg
88261997	05.01.12.00	J01M A12	LEVOFLOXACIN 500mg tablets	tablets	500	mg
81202998	05.01.12.00	J01M A12	LEVOFLOXACIN	tablets	250	mg

			250mg tablets			
88261998	05.01.12.00	J01M A12	LEVOFLOXACIN 250mg tablets	tablets	250	mg
92120990	05.01.12.00	J01M B02	NALIDIXIC ACID susp 300mg/5ml	suspension	300	mg/5mL
92867990	05.01.12.00	J01M A02	CIPROFLOXACIN IN GLUCOSE 5% inf 400mg/200ml	intravenous infusion	400	mg/200mL
92868990	05.01.12.00	J01M A02	CIPROFLOXACIN IN GLUCOSE 5% inf 200mg/100ml	intravenous infusion	200	mg/100mL
93079996	05.01.12.00	J01M A02	CIPROFLOXACIN susp 250mg/5ml	oral suspension	5	g/100mL
93079997	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg
93079998	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
93080996	05.01.12.00	J01M A02	CIPROFLOXACIN 250mg/5mL susp	oral suspension	5	g/100mL
93080997	05.01.12.00	J01M A02	CIPROFLOXACIN 100mg tablets	tablets	100	mg
93080998	05.01.12.00	J01M A02	CIPROFLOXACIN 750mg tablets	tablets	750	mg
93105990	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE 0.9% inf 400mg/200ml	intravenous infusion	400	mg/200mL
93106990	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE 0.9% inf 200mg/100ml	intravenous infusion	200	mg/100mL
93221990	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE 0.9% inf 400mg/200ml	intravenous infusion	400	mg/200mL
93222990	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE 0.9% inf 200mg/100ml	intravenous infusion	200	mg/100mL
93223990	05.01.12.00	J01M A02	CIPROFLOXACIN IN SODIUM CHLORIDE	intravenous	100	mg/50mL

			0.9% inf 100mg/50ml	infusion		
93255998	05.01.12.00	J01M A06	NORFLOXACIN 400mg tablets	tablets	400	mg
93256998	05.01.12.00	J01M A06	NORFLOXACIN tabs 400mg	tablets	400	mg
93552997	05.01.12.00	J01M A01	OFLOXACIN tabs 400mg	tablets	400	mg
93552998	05.01.12.00	J01M A01	OFLOXACIN tabs 200mg	tablets	200	mg
93554997	05.01.12.00	J01M A01	OFLOXACIN 400mg tablets	tablets	400	mg
93554998	05.01.12.00	J01M A01	OFLOXACIN 200mg tablets	tablets	200	mg
93757998	05.01.12.00	J01M B02	NALIDIXIC ACID 300mg/5mL susp	suspension	300	mg/5mL
93830990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
94023990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
94024990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
94267990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
94268990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg
94418990	05.01.12.00	J01M A01	OFLOXACIN tabs 400mg	tablets	400	mg
94419990	05.01.12.00	J01M A01	OFLOXACIN tabs 200mg	tablets	200	mg
94429998	05.01.12.00	J01M A04	ENOXACIN 200mg tablets	tablets	200	mg
94430998	05.01.12.00	J01M A04	ENOXACIN tabs 200mg	tablets	200	mg
94606990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
94607990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
94653990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs	tablets	750	mg

			750mg			
94691990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
94692990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
94912996	05.01.12.00	J01M A02	CIPROFLOXACIN 500mg tablets	tablets	500	mg
94912997	05.01.12.00	J01M A02	CIPROFLOXACIN 2mg/mL inf 100mL	intravenous infusion	400	mg/200mL
94912998	05.01.12.00	J01M A02	CIPROFLOXACIN 250mg tablets	tablets	250	mg
94913996	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
94913997	05.01.12.00	J01M A02	CIPROFLOXACIN inf 2mg/ml	intravenous infusion	100	mg/50mL
94913998	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
95131990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
95132990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
95154990	05.01.12.00	J01M A06	NORFLOXACIN tabs 400mg	tablets	400	mg
95181990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
95210990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
95211990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
95212990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
95266997	05.01.12.00	J01M A05	TEMAFLOXACIN tabs 400mg	tablets	400	mg
95266998	05.01.12.00	J01M A05	TEMAFLOXACIN tabs 300mg	tablets	300	mg
95274990	05.01.12.00	J01M A01	OFLOXACIN tabs 400mg	tablets	400	mg
95275990	05.01.12.00	J01M A01	OFLOXACIN tabs	tablets	200	mg

			200mg			
95305997	05.01.12.00	J01M A05	TEMAFLOXACIN 400mg tablets	tablets	400	mg
95305998	05.01.12.00	J01M A05	TEMAFLOXACIN 300mg tablets	tablets	300	mg
95344990	05.01.12.00	J01M A01	OFLOXACIN tabs 400mg	tablets	400	mg
95355998	05.01.12.00	J01M B01	ACROSOXACIN 150mg capsules	capsules	150	mg
95356998	05.01.12.00	J01M B01	ROSOXACIN caps 150mg	capsules	150	mg
95366990	05.01.12.00	J01M A06	NORFLOXACIN tabs 400mg	tablets	400	mg
95429990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
95430990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
95447990	05.01.12.00	J01M A01	OFLOXACIN tabs 200mg	tablets	200	mg
95627990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
95628990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
95629990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
95686990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg
95759998	05.01.12.00	J01M B02	NALIDIXIC ACID + SODIUM CITRATE sach 660mg + 3750mg	effervescent granules	660	mg/sachet
95760996	05.01.12.00	J01M B02	NALIDIXIC ACID sf susp 300mg/5ml	sugar free suspension	300	mg/5mL
95760997	05.01.12.00	J01M B02	NALIDIXIC ACID susp 300mg/5ml	suspension	300	mg/5mL
95760998	05.01.12.00	J01M B02	NALIDIXIC ACID tabs 500mg	tablets	500	mg
95804990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg

95821990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
95822990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
95823990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
95824990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg
95865990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
95866990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
95867990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
95946990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
95947990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
95948990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
95949990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg
95956990	05.01.12.00	J01M A01	OFLOXACIN tabs 200mg	tablets	200	mg
95964990	05.01.12.00	J01M A06	NORFLOXACIN tabs 400mg	tablets	400	mg
96022990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
96023990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
96024990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
96030990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
96031990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
96032990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg

96033990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg
96042990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
96043990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
96044990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
96045990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 100mg	tablets	100	mg
96047990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
96048990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
96049990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
96050990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
96051990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
96052990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
96056990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 750mg	tablets	750	mg
96057990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
96058990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
96066990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 500mg	tablets	500	mg
96067990	05.01.12.00	J01M A02	CIPROFLOXACIN tabs 250mg	tablets	250	mg
96099990	05.01.12.00	J01M A01	OFLOXACIN tabs 400mg	tablets	400	mg
96100990	05.01.12.00	J01M A01	OFLOXACIN tabs 200mg	tablets	200	mg
96185990	05.01.12.00	J01M A01	OFLOXACIN tabs 400mg	tablets	400	mg

96186990	05.01.12.00	J01M A01	OFLOXACIN tabs 400mg	tablets	400	mg
96187990	05.01.12.00	J01M A01	OFLOXACIN tabs 200mg	tablets	200	mg
96188990	05.01.12.00	J01M A01	OFLOXACIN tabs 200mg	tablets	200	mg
96661998	05.01.12.00	J01M B06	CINOXACIN caps 500mg	capsules	500	mg
96705990	05.01.12.00	J01M A06	NORFLOXACIN tabs 400mg	tablets	400	mg
97799998	05.01.12.00	J01M A01	OFLOXACIN 100mg/50mL i-v inf	intravenous infusion	200	mg/100mL
97809998	05.01.12.00	J01M A01	OFLOXACIN inf 2mg/ml	intravenous infusion	100	mg/50mL
98225992	05.01.12.00		URIBEN 500 MG TAB		500	mg
98474998	05.01.12.00	J01M B02	NALIDIXIC ACID 660mg/sachet	effervescent granules	660	mg/sachet
98478990	05.01.12.00	J01M B02	NALIDIXIC ACID tabs 500mg	tablets	500	mg
99371997	05.01.12.00	J01M B02	NALIDIXIC AC 300mg/5mL sf susp	sugar free suspension	300	mg/5mL
99371998	05.01.12.00	J01M B02	NALIDIXIC ACID 500mg tablets	tablets	500	mg
99826998	05.01.12.00	J01M B06	CINOXACIN 500mg capsules	capsules	500	mg

7.8. Annex 3 – Systemic corticosteroids

multilexeid	Genericname	Risk group
80932998	BUDESONIDE G/R GRANULES 9MG	corticosteroid - systemic
81914998	PREDNISONE MR TAB 5MG	corticosteroid - systemic
81916998	PREDNISONE MR TAB 1MG	corticosteroid - systemic
81946998	DEXAMETHASONE 700MCG IMPLANT	intravitreal injection (see also readcodes)
82154998	PREDNISOLONE SODIUM PHOSPHATE + NEOMYCIN EYE/EAR DROPS 0.5% + 0.5%	corticosteroid - ocular
82155998	PREDNISOLONE 0.5% EYE/EAR DRPS	corticosteroid - ocular
82193998	BETAMETH+NEOMYC 0.1%/0.5% E/D	corticosteroid - ocular
82194998	BETAMETHASONE SODIUM PHOSPHATE DROPS 0.1%	corticosteroid - ocular

82607998	DEFLAZACORT 6MG TABLETS	corticosteroid - systemic
82922998	DEXAMETHASONE + FRAMYCETIN & GRAMICIDIN EYE/EAR DROPS	corticosteroid - ocular
84012998	LOTEPREDNOL ETABONATE 0.5% E/D	corticosteroid - ocular
84013998	LOTEPREDNOL ETABONATE EYE DRP 0.5%	corticosteroid - ocular
84044998	HYDROCORTISONE ORAL SUSP 10MG/5ML	corticosteroid - systemic
84379998	PREDNISOLONE SODIUM PHOSPHATE EYE DRP 0.125%	corticosteroid - ocular
84380998	PREDNISOLONE SODIUM PHOSPHATE EYE DRP 0.03%	corticosteroid - ocular
84382998	PREDNISOLONE SODIUM PHOSPHATE EYE DRP 0.01%	corticosteroid - ocular
84856998	RANIBIZUMAB 2.3MG/0.23ML INJ	intravitreal injection (see also readcodes)
85183998	DEXAMETHASONE INJ 6.6MG/2ML	corticosteroid - systemic
85184998	DEXAMETHASONE INJ 3.3MG/ML	corticosteroid - systemic
85248998	HYDROCORTISONE 500MG INJECTION	corticosteroid - systemic
85249998	HYDROCORTISONE 100MG/1ML INJ	corticosteroid - systemic
85250998	HYDROCORTISONE SODIUM PHOS INJ 500MG/5ML	corticosteroid - systemic
85251998	HYDROCORTISONE SODIUM PHOS INJ 100MG/1ML	corticosteroid - systemic
85270998	DEXAMETHASONE PRES FREE EYE DROPS	corticosteroid - ocular
85441998	PREDNISOLONE SODIUM PHOSPHATE PRES FREE EYE DROPS 0.03%	corticosteroid - ocular
85457998	PREDNISOLONE SODIUM PHOSPHATE PRES FREE EYE DROPS	corticosteroid - ocular
85515998	DEXAMETHASONE CAPS	corticosteroid - systemic
85744998	TRIAMCINOLONE 80MG/2ML INJ	corticosteroid - systemic
85748998	TRIAMCINOLONE ACETONIDE IA / IM INJ 80MG/2ML	corticosteroid - systemic
86465998	DEXAMETHASONE INJ 4MG/ML	corticosteroid - systemic
86941998	BECLOMETASONE 5MG E/C M/R TABS	corticosteroid - systemic
86942998	BECLOMETASONE GR MR TABLETS 5MG	corticosteroid - systemic
88196998	DEXAMETHASONE SODIUM PHOSPHATE PRES FREE EYE DROPS 0.1%	corticosteroid - ocular
88219998	DEXAMETHASONE 0.1% S-D EYE DRP	corticosteroid - ocular
89443996	DEFLAZACORT 1MG TABLETS	corticosteroid - systemic
89443997	DEFLAZACORT 30MG TABLETS	corticosteroid - systemic
89443998	DEFLAZACORT 6MG TABLETS	corticosteroid - systemic
89446996	DEFLAZACORT TABS 1MG	corticosteroid - systemic
89446997	DEFLAZACORT TABS 30MG	corticosteroid - systemic
89446998	DEFLAZACORT TABS 6MG	corticosteroid - systemic
89585998	BUDESONIDE CAPS 3MG	corticosteroid - systemic
90633998	BUDESONIDE MR CAP 3MG	corticosteroid - systemic

90634998	BUDESONIDE 3MG M/R CAPSULES	corticosteroid - systemic
91227998	RIMEXOLONE 1% EYE DROPS	corticosteroid - ocular
91419998	BUDESONIDE 3MG CAPSULES	corticosteroid - systemic
91627998	DEXAMET+TOBRAMYC 0.1%/0.3% E/D	corticosteroid - ocular
91628998	TOBRAMYCIN + DEXAMETHASONE EYE DRP 0.3% + 0.1%	corticosteroid - ocular
91646998	DEXAMETHASONE 2MG/5ML S/F SOLN	corticosteroid - systemic
91697998	RIMEXOLONE EYE DRP 1%	corticosteroid - ocular
91739998	NEOMYCIN SULPHATE + HYDROCORTISONE EYE OINT	corticosteroid - ocular
91926998	HYDROCORT+NEOMY 1.5%/0.5% E/D	corticosteroid - ocular
92109998	BETAMETH+NEOMYC 0.1%/0.5% E/D	corticosteroid - ocular
92320997	PREDNISOLONE SODIUM PHOSPHATE PRES FREE EYE DROPS 0.3%	corticosteroid - ocular
92320998	PREDNISOLONE SODIUM PHOSPHATE PRES FREE EYE DROPS 0.1%	corticosteroid - ocular
92412998	HYDROCORTISONE SF ORAL SUSP 5MG/5ML	corticosteroid - systemic
92472996	DEXAMETHASONE + FRAMYCETIN & GRAMICIDIN EYE/EAR DROPS	corticosteroid - ocular
92472998	DEXAMETHASONE + FRAMYCETIN & GRAMICIDIN EYE OINT	corticosteroid - ocular
92509998	DEXAMETHASONE + FRAMYCETIN & GRAMICIDIN EYE/EAR DROPS	corticosteroid - ocular
92620998	BETAMETHASONE SODIUM PHOSPHATE EYE OINT 0.1%	corticosteroid - ocular
92810997	DEXAMETHASONE ORAL SOLN 2MG/5ML	corticosteroid - systemic
92810998	DEXAMETHASONE SF ORAL SOLN 2MG/5ML	corticosteroid - systemic
92861998	BETAMETHASONE SODIUM PHOSPHATE SOL TAB 500MICROGRAMS	corticosteroid - systemic
92868998	PREDNISOLONE SODIUM PHOSPHATE PRES FREE EYE DROPS 0.5%	corticosteroid - ocular
92955998	DEXAMETHASONE COMP EYE OINT	corticosteroid - ocular
92956998	DEXAMETHASONE + NEOMYCIN & POLYMYXIN EYE OINT	corticosteroid - ocular
93075996	PREDNISOLONE SODIUM PHOSPHATE EYE DRP 0.1%	corticosteroid - ocular
93075997	PREDNISOLONE SODIUM PHOSPHATE EYE DRP 0.05%	corticosteroid - ocular
93075998	PREDNISOLONE SODIUM PHOSPHATE SOL TAB 5MG	corticosteroid - systemic
93098990	DEXAMETHASONE TABS 2MG	corticosteroid - systemic
93275992	CLOBETASONE BUTYRATE E/D	corticosteroid - ocular
93289992	CORTICOTROPHIN 20 I/U4 INJ	corticosteroid - systemic
93493998	METHYLPREDNISOLONE	corticosteroid - systemic

	SODIUM SUCC INJ 125MG	
93494998	METHYLPREDN 125MG INJ PDR+DIL	corticosteroid - systemic
93616998	DEXAMETHASONE + NEOMYCIN EAR SPRAY	corticosteroid - ocular
93647992	BETAMETHASONE LOZ	corticosteroid - systemic
93749992	PREDNISOLONE DROPS 5 % EYE	corticosteroid - ocular
93867997	DEXAMETHASONE SODIUM PHOSPHATE INJ 120MG/5ML	corticosteroid - systemic
93912996	PREDNISOLONE TABS 50MG	corticosteroid - systemic
93912997	PREDNISOLONE EC TAB 5MG	corticosteroid - systemic
93912998	PREDNISOLONE EC TAB 2.5MG	corticosteroid - systemic
93924992	NEO-CORTEF CRE	corticosteroid - ocular
94047992	CORTICOTROPHIN 200U/5ML INJ	corticosteroid - systemic
94127998	FLUOROMETH+NEOMY 0.1/0.5% E/D	corticosteroid - ocular
94128998	FLUOROMETHOLONE EYE DROPS	corticosteroid - ocular
94129998	FLUOROMETHOLONE + NEOMYCIN EYE DRP	corticosteroid - ocular
94130998	FLUOROMETHOLONE EYE DRP 0.1%	corticosteroid - ocular
94170998	BETAMETH+NEOMYC 0.1%/0.5% E/D	corticosteroid - ocular
94171998	BETAMETHASONE 0.1% EYE DROPS	corticosteroid - ocular
94173997	BETAMETHASONE SODIUM PHOSPHATE + NEOMYCIN EYE OINT 0.1% + 0.5%	corticosteroid - ocular
94173998	BETAMETHASONE SODIUM PHOSPHATE + NEOMYCIN EYE DRP 0.1% + 0.5%	corticosteroid - ocular
94175997	BETAMETHASONE SODIUM PHOSPHATE DROPS 0.1%	corticosteroid - ocular
94175998	BETAMETHASONE SODIUM PHOSPHATE EYE DRP 0.1%	corticosteroid - ocular
94176998	BETAMETHASONE SODIUM PHOSPHATE INJ 4MG/1ML	corticosteroid - systemic
94183998	PREDNISOLONE SODIUM PHOSPHATE EYE/EAR DROPS 0.5%	corticosteroid - ocular
94189992	HYDROCORTISONE OINT 2.5 % EYE	corticosteroid - ocular
94246992	NEOMYCIN SULP/HYDROCORTISONE DROPS .5 % DRO	corticosteroid - ocular
94305992	PREDNISOLONE DROPS .3 % EYE	corticosteroid - ocular
94306992	PREDSOL DROPS .01 % EYE	corticosteroid - ocular
94471998	HYDROCORTISONE ACETATE INJ SUSP 25MG/1ML	corticosteroid - systemic
94528992	PREDNISOLONE DROPS .03 % EYE	corticosteroid - ocular
94529992	PREDSOL DROPS .3 % EYE	corticosteroid - ocular
94577992	CORTICOTROPHIN 200U/5ML INJ	corticosteroid - systemic
94578992	CORTICOTROPHIN 100U/5ML INJ	corticosteroid - systemic
94722992	BETAMETHASONE DROPS EYE	corticosteroid - ocular

94726992	BETNOVATE-N OINT EYE	corticosteroid - ocular
94743998	PREDNISOLONE ACETATE 1% E/D	corticosteroid - ocular
94744997	PREDNISOLONE ACETATE EYE DRP 0.5%	corticosteroid - ocular
94744998	PREDNISOLONE ACETATE EYE DRP 1%	corticosteroid - ocular
94791992	CHLORAMPHENICOL&HYDROC ORTISONE OINT EYE	corticosteroid - ocular
94903992	DEXAMETHASONE ACETATE INSUFFLATOR OUTFIT	corticosteroid - ocular
94906992	DEXAMETHASONE DROPS .1 % EYE	corticosteroid - ocular
94954992	EFCORTELAN 2.5 % EYE	corticosteroid - ocular
95026992	FLUDROCORTISONE ACETATE 100 MCG TAB	corticosteroid - systemic
95121992	HYDROCORTISONE & NEOMYCIN DROPS 1 % EYE	corticosteroid - ocular
95127992	HYDROCORTISONE OINT .5 % EYE	corticosteroid - ocular
95128992	HYDROCORTISONE OINT 1 % EYE	corticosteroid - ocular
95129992	HYDROCORTISONE 1 % EYE	corticosteroid - ocular
95130992	HYDROCORTISONE EYE DROPS EYE	corticosteroid - ocular
95139997	TRIAMCINOLONE TABS 4MG	corticosteroid - systemic
95139998	TRIAMCINOLONE TABS 2MG	corticosteroid - systemic
95312992	NEO-CORTEF 1 % LOT	corticosteroid - ocular
95316992	NEOMYCIN/PREDNISOLONE OINT DRO	corticosteroid - ocular
95410998	PREDNISOLONE 0.5% S-D E/D	corticosteroid - ocular
95411997	PREDNISOLONE SODIUM PHOSPHATE + NEOMYCIN EYE/EAR DROPS 0.5% + 0.5%	corticosteroid - ocular
95411998	PREDNISOLONE SODIUM PHOSPHATE + NEOMYCIN EYE DRP 0.5% + 0.5%	corticosteroid - ocular
95412996	PREDNISOLONE SODIUM PHOSPHATE EYE DRP 0.3%	corticosteroid - ocular
95412997	PREDNISOLONE SODIUM PHOSPHATE EYE DRP 0.5%	corticosteroid - ocular
95417996	PREDNISOLONE EC TAB 5MG	corticosteroid - systemic
95417997	PREDNISOLONE TABS 25MG	corticosteroid - systemic
95417998	PREDNISOLONE TABS 2.5MG	corticosteroid - systemic
95483992	PREDNISOLONE DROPS .1 % EYE	corticosteroid - ocular
95484992	PREDNISOLONE E/C 1 MG TAB	corticosteroid - systemic
95487992	PREDNISOLONE 5MG SOL TABLETS	corticosteroid - systemic
95488992	PREDSOL DROPS .1 % EYE	corticosteroid - ocular
95490992	PREDNISOLONE SODIUM PHOSPHATE .5 % EYE	corticosteroid - ocular
95492992	PREDNISOLONE 10 MG TAB	corticosteroid - systemic
95493992	PREDNISOLONE 2 MG TAB	corticosteroid - systemic
95494992	PREDNISOLONE DROPS .5 % EYE	corticosteroid - ocular
95495992	PREDNISOLONE DROPS 1 % EYE	corticosteroid - ocular
95500992	PREDSOL DROPS 1 % EYE	corticosteroid - ocular
95740998	NEOMYCIN SULPHATE + HYDROCORTISONE EYE OINT	corticosteroid - ocular

95741998	NEOMYCIN SULPHATE + HYDROCORTISONE EYE DRP 0.5% + 1.5%	corticosteroid - ocular
95742996	NEOMYCIN SULPHATE + PREDNISOLONE EYE/EAR DROPS 0.5% + 0.5%	corticosteroid - ocular
95742998	NEOMYCIN SULPHATE + PREDNISOLONE EYE DRP 0.5% + 0.5%	corticosteroid - ocular
95743997	BETAMETH+NEOMYCIN EYE OINT	corticosteroid - ocular
95743998	BETAMETH+NEOMYC 0.1%/0.5% E/D	corticosteroid - ocular
95847996	METHYLPREDNISOLONE 16MG TABS	corticosteroid - systemic
95847997	METHYLPREDNISOLONE 4MG TABLETS	corticosteroid - systemic
95847998	METHYLPREDNISOLONE 2MG TABLETS	corticosteroid - systemic
95849997	METHYLPREDNISOLONE SODIUM SUCC INJ 2G	corticosteroid - systemic
95849998	METHYLPREDNISOLONE SODIUM SUCC INJ 1G	corticosteroid - systemic
95850996	METHYLPREDNISOLONE SODIUM SUCC INJ 500MG	corticosteroid - systemic
95850997	METHYLPREDNISOLONE SODIUM SUCC INJ 40MG	corticosteroid - systemic
95851996	METHYLPREDNISOLONE TABS 16MG	corticosteroid - systemic
95851997	METHYLPREDNISOLONE TABS 4MG	corticosteroid - systemic
95851998	METHYLPREDNISOLONE TABS 2MG	corticosteroid - systemic
95912990	PREDNISOLONE TABS 25MG	corticosteroid - systemic
95967998	BETAMETHASONE TABS 500MICROGRAMS	corticosteroid - systemic
96143997	HYDROCORTISONE TABS 20MG	corticosteroid - systemic
96143998	HYDROCORTISONE TABS 10MG	corticosteroid - systemic
96164996	HYDROCORTISONE + NEOMYCIN EYE DRP 1.5% + 0.5%	corticosteroid - ocular
96171992	CORTICOTROPHIN 60 I/U INJ	corticosteroid - systemic
96172998	HYDROCORTISONE NA PHOSPHATE INJ 100MG/ML	corticosteroid - systemic
96175998	HYDROCORTISONE 100MG INJECTION	corticosteroid - systemic
96181992	DEXAMETHASONE 8 MG TAB	corticosteroid - systemic
96182992	DEXAMETHASONE 750 MCG TAB	corticosteroid - systemic
96217992	EFCORTELAN 25 MG INJ	corticosteroid - systemic
96245992	FLUDROCORTISONE .05 MG SUS	corticosteroid - systemic
96270992	HYDROCORTISONE I/V 100 MG INJ	corticosteroid - systemic
96361990	PREDNISOLONE TABS 1MG	corticosteroid - systemic
96409992	PREDNISOLONE 50 MG TAB	corticosteroid - systemic
96410992	PREDNISONE 50 MG TAB	corticosteroid - systemic
96411992	PREDNISOLONE 15 MG TAB	corticosteroid - systemic
96423998	DEXAMETHASONE + NEOMYCIN & POLYMYXIN EYE DRP	corticosteroid - ocular

96424998	DEXAMETH+HYPRMEL 0.1/0.5% E/D	corticosteroid - ocular
96426998	DEXAMETHASONE + FRAMYCETIN & GRAMICIDIN EYE DRP	corticosteroid - ocular
96427998	DEXAMETHASONE + NEOMYCIN & POLYMYXIN EYE DRP	corticosteroid - ocular
96428998	DEXAMETHASONE EYE DRP 0.1%	corticosteroid - ocular
96431996	DEXAMETHASONE ELIXIR 0.5MG/5ML	corticosteroid - systemic
96431997	DEXAMETHASONE TABS 2MG	corticosteroid - systemic
96431998	DEXAMETHASONE TABS 0.5MG	corticosteroid - systemic
96480996	FRAMYCETIN + DEXAMETHASONE & GRAMICIDIN EYE/EAR DROPS	corticosteroid - ocular
96481997	FRAMYCETIN + DEXAMETHASONE & GRAMICIDIN EYE DRP	corticosteroid - ocular
96481998	FRAMYCETIN + DEXAMETHASONE & GRAMICIDIN EYE OINT	corticosteroid - ocular
96483997	FRAMYCETIN + HYDROCORTISONE EYE DRP	corticosteroid - ocular
96486992	TETRACOSACTRIN/ZINC PHOSPHATE COMPLEX 1 MG INJ	corticosteroid - systemic
96526998	FLUDROCORTISONE TABS 0.1MG	corticosteroid - systemic
96577990	PREDNISOLONE SODIUM PHOSPHATE SOL TAB 5MG	corticosteroid - systemic
96603997	CORTISONE ACETATE TABS 25MG	corticosteroid - systemic
96603998	CORTISONE ACETATE TABS 5MG	corticosteroid - systemic
96604998	CORTICOTROPHIN 300U/5ML INJ	corticosteroid - systemic
96606996	CORTICOTROPIN INJ 80 IU/ML	corticosteroid - systemic
96606997	CORTICOTROPIN INJ 40 IU/ML	corticosteroid - systemic
96631992	DECORTISYL 25 MG TAB	corticosteroid - systemic
96644998	CLOBETASONE BUTYRATE + NEOMYCIN EYE DRP	corticosteroid - ocular
96658992	FLUDROCORTISONE 25 MCG TAB	corticosteroid - systemic
96661992	FLUOROMETHOLONE EYE .1 % DRO	corticosteroid - ocular
96680992	HYDROCORTISONE 100 MG INJ	corticosteroid - systemic
96720992	NEOMYCIN 0.5%/PREDNISOLONE 0.5% EAR/EYE % DRO	corticosteroid - ocular
96743992	PREDNISONONE 2.5 MG TAB	corticosteroid - systemic
96744992	PREDNISOLONE 4 MG TAB	corticosteroid - systemic
96813998	CHLORAMPHENICOL + HYDROCORTISONE OPHTH OINT	corticosteroid - ocular
97155997	PREDNISOLONE TABS 5MG	corticosteroid - systemic
97155998	PREDNISOLONE TABS 1MG	corticosteroid - systemic
97156997	PREDNISONONE TABS 5MG	corticosteroid - systemic
97156998	PREDNISONONE TABS 1MG	corticosteroid - systemic
97203992	CORTISONE ACETATE 2.5 MG	corticosteroid - systemic

	TAB	
97204992	CORTISONE ACETATE 25 MG INJ	corticosteroid - systemic
97240992	DELTA-CORTRIL 1 MG TAB	corticosteroid - systemic
97243992	DECADRON 2 MG TAB	corticosteroid - systemic
97292997	HYDROCORTISONE ACETATE + NEOMYCIN SULPHATE EYE/EAR DROPS	corticosteroid - ocular
97293997	NEOMYCIN SULPHATE + HYDROCORTISONE EYE OINT	corticosteroid - ocular
97341992	EFCORTELAN 100 MG INJ	corticosteroid - systemic
97436998	PREDNISOLONE 25MG TABLETS	corticosteroid - systemic
97451992	FLUDROCORTISONE 75 MCG TAB	corticosteroid - systemic
97457992	FLUOROMETHOLONE 0.1%/NEOMYCIN 0.5% EYE % DRO	corticosteroid - ocular
97492997	HYDROCORTISONE 20MG TABLETS	corticosteroid - systemic
97492998	HYDROCORTISONE 10MG TABLETS	corticosteroid - systemic
97502998	DEXAMETHASONE 500MCG TABLETS	corticosteroid - systemic
97511998	PREDNISOLONE 32MG/2ML INJ	corticosteroid - systemic
97583992	HYDROCORTISONE 25 MG TAB	corticosteroid - systemic
97623996	HYDROCORTISONE EYE OINT 2.5%	corticosteroid - ocular
97623997	HYDROCORTISONE EYE OINT 1%	corticosteroid - ocular
97623998	HYDROCORTISONE EYE OINT 0.5%	corticosteroid - ocular
97640997	HYDROCORTISONE NA SUCCINATE INJ 500MG/VIAL	corticosteroid - systemic
97640998	HYDROCORTISONE NA SUCCINATE INJ 100MG/VIAL	corticosteroid - systemic
97689998	HYDROCORTISONE EYE DRP 1%	corticosteroid - ocular
97726990	PREDNISOLONE EC TAB 2.5MG	corticosteroid - systemic
97739992	METHYLPREDNISOLONE 40 MG/ML INJ	corticosteroid - systemic
97829998	METHYLPREDNISOLONE 100MG TABS	corticosteroid - systemic
97832998	METHYLPREDNISOLONE TABS 100MG	corticosteroid - systemic
97902998	METHYLPREDNISOL 1G INJ PDR+DIL	corticosteroid - systemic
97903996	METHYLPREDN 500MG INJ PDR+DIL	corticosteroid - systemic
97903997	METHYLPREDNIS 40MG INJ PDR+DIL	corticosteroid - systemic
97942992	PREDNISONE 10 MG TAB	corticosteroid - systemic
97943992	PREDNISONE 30 MG TAB	corticosteroid - systemic
98107990	PREDNISOLONE TABS 5MG	corticosteroid - systemic
98116998	CLOBETASONE BUTYRATE EYE DRP 0.1%	corticosteroid - ocular
98326997	TRIAMCINOLONE 4MG TABLETS	corticosteroid - systemic
98326998	TRIAMCINOLONE 2MG TABLETS	corticosteroid - systemic
98369997	PREDNISOLONE SODIUM	corticosteroid - ocular

	PHOSPHATE + NEOMYCIN EYE/EAR DROPS 0.5% + 0.5%	
98369998	PREDNISOLONE SODIUM PHOSPHATE + NEOMYCIN EYE DRP 0.5% + 0.5%	corticosteroid - ocular
98374998	CLOBETASONE+NEOMYCIN EYE DROP	corticosteroid - ocular
98375998	CLOBETASONE BUTYRATE E/D	corticosteroid - ocular
98376998	HYDROCORTISONE NA SUCCINATE INJ 100MG/VIAL	corticosteroid - systemic
98392998	BETAMETH+NEOMYCIN EYE OINT	corticosteroid - ocular
98393997	BETAMETH+NEOMYC 0.1%/0.5% E/D	corticosteroid - ocular
98393998	BETAMETH+NEOMYC 0.1%/0.5% E/D	corticosteroid - ocular
98394998	BETAMETHASONE 500MCG SOL TABS	corticosteroid - systemic
98395998	BETAMETHASONE 4MG/1ML INJ	corticosteroid - systemic
98396998	BETAMETHASONE 0.1% EYE OINT	corticosteroid - ocular
98411998	HYDROCORTISONE NA SUCCINATE + FRAMYCETIN EYE OINT	corticosteroid - ocular
98412998	FRAMYCETIN + HYDROCORTISONE EYE DRP	corticosteroid - ocular
98455990	PREDNISOLONE EC TAB 5MG	corticosteroid - systemic
98456988	PREDNISOLONE TABS 1MG	corticosteroid - systemic
98514998	PREDNISOLONE 1MG TABLETS	corticosteroid - systemic
98562997	PREDNISOLONE 5MG E/C TABLETS	corticosteroid - systemic
98562998	PREDNISOLONE 2.5MG E/C TABLETS	corticosteroid - systemic
98582998	BETAMETHASONE 0.1% EYE DROPS	corticosteroid - ocular
98586990	BETAMETHASONE SODIUM PHOSPHATE + NEOMYCIN EYE DRP 0.1% + 0.5%	corticosteroid - ocular
98644989	DEXAMETHASONE TABS 2MG	corticosteroid - systemic
98805988	HYDROCORTISONE EYE OINT 0.5%	corticosteroid - ocular
99099989	PREDNISOLONE EC TAB 5MG	corticosteroid - systemic
99099990	PREDNISOLONE EC TAB 2.5MG	corticosteroid - systemic
99100990	PREDNISOLONE TABS 1MG	corticosteroid - systemic
99129997	DEXAMETHASONE + FRAMYCETIN & GRAMICIDIN EYE DRP	corticosteroid - ocular
99129998	DEXAMETHASONE + FRAMYCETIN & GRAMICIDIN EYE OINT	corticosteroid - ocular
99137998	PREDNISOLONE 5MG TABLETS	corticosteroid - systemic
99225997	PREDNISOLONE EYE DROPS	corticosteroid - ocular
99225998	PREDNISOLONE EYE DROPS	corticosteroid - ocular
99226998	PREDNISOLONE 5MG SOL TABLETS	corticosteroid - systemic
99228997	PREDNISOLONE 5MG TABLETS	corticosteroid - systemic
99228998	PREDNISOLONE 1MG TABLETS	corticosteroid - systemic
99423988	PREDNISOLONE EC TAB 2.5MG	corticosteroid - systemic
99423989	PREDNISOLONE TABS 5MG	corticosteroid - systemic
99423990	PREDNISOLONE TABS 1MG	corticosteroid - systemic

99425988	PREDNISOLONE EC TAB 5MG	corticosteroid - systemic
99425989	PREDNISOLONE TABS 5MG	corticosteroid - systemic
99425990	PREDNISOLONE TABS 1MG	corticosteroid - systemic
99549998	HYDROCORTISONE 25MG/1ML INJ	corticosteroid - systemic
99550998	HYDROCORTISONE 20MG TABLETS	corticosteroid - systemic
99636998	FLUDROCORTIS ACET 100MCG TABS	corticosteroid - systemic
99699998	HYDROCORTISONE 500MG INJECTION	corticosteroid - systemic
99781998	PREDNISONE 5MG TABLETS	corticosteroid - systemic
99802998	CORTISONE 25MG TABLETS	corticosteroid - systemic
99834998	HYDROCORT+CHLORAMPHEN EYE OIN	corticosteroid - ocular
99889997	BETAMETHASONE 0.1% EYE DROPS	corticosteroid - ocular
99889998	BETAMETHASONE 0.1% EYE DROPS	corticosteroid - ocular
99890998	BETAMETHASONE 500MCG TABLETS	corticosteroid - systemic
99992996	CORTICOTROPHIN 400U/5ML INJ	corticosteroid - systemic

7.9. Annex 4 – Read codes for relevant traumatic events

medcode	description	Risk group
7204.00	Plastic repair of orbit	other ocular surgery - 3 - traumatic
7204.11	Reconstruction of orbit	other ocular surgery - 3 - traumatic
7204.13	Plastic repair of cavity of orbit	other ocular surgery - 3 - traumatic
7204000	Reconstruction of cavity of orbit, unspecified	other ocular surgery - 3 - traumatic
7204500	Reconstruction of cavity of orbit with local skin flap	other ocular surgery - 3 - traumatic
7204z00	Plastic repair of orbit NOS	other ocular surgery - 3 - traumatic
7206100	Open reduction of fracture of orbit	ocular trauma
7206400	Open reduction of fracture of orbit and internal fixation	ocular trauma
7206500	Insertion of orbital floor implant	other ocular surgery - 3 - traumatic
7206700	Packing of maxilla to correct blow-out fracture of orbit	ocular trauma
7206800	Internal fixation of fracture of orbit	ocular trauma
726..00	Anterior chamber of eye and lens operations	cataract surgery
7263.00	Extracapsular extraction of lens	cataract surgery
7263.12	Extracapsular extraction of cataract	cataract surgery
7263000	Simple linear extraction of lens	cataract surgery
7263011	Needling of lens for cataract	cataract surgery
7263100	Phacoemulsification of lens	cataract surgery
7263111	Phacoemulsification of lens	cataract surgery
7263200	Aspiration of lens	cataract surgery
7263y00	Other specified extracapsular extraction of lens	cataract surgery
7263z00	Extracapsular extraction of lens NOS	cataract surgery
7264.00	Intracapsular extraction of lens	cataract surgery
7264.11	Intracapsular extraction of cataract	cataract surgery
7264000	Forceps extraction of lens	cataract surgery
7264100	Suction extraction of lens	cataract surgery

7264200	Cryoextraction of lens	cataract surgery
7264y00	Other specified intracapsular extraction of lens	cataract surgery
7264z00	Intracapsular extraction of lens NOS	cataract surgery
7265.00	Incision of capsule of lens	cataract surgery
7265.11	Capsulotomy of eye lens	cataract surgery
7265000	Membranectomy of lens	cataract surgery
7265100	Capsulotomy of anterior lens capsule	cataract surgery
7265200	Capsulotomy of posterior lens capsule	cataract surgery
7265300	Capsulotomy of lens NEC	cataract surgery
7265y00	Other specified incision of capsule of lens	cataract surgery
7265z00	Incision of capsule of lens NOS	cataract surgery
7266.00	Other extraction of lens	cataract surgery
7266.11	Other extraction of cataract	cataract surgery
7266000	Curettage of lens	cataract surgery
7266100	Discission of cataract	cataract surgery
7266200	Mechanical lensectomy	cataract surgery
7266y00	Other specified other extraction of lens	cataract surgery
7266z00	Other extraction of lens NOS	cataract surgery
7267.00	Prosthesis of lens	cataract surgery
7267000	Insertion of prosthetic replacement for lens	cataract surgery
7267100	Revision of prosthetic replacement for lens	cataract surgery
7267200	Removal of prosthetic replacement for lens	cataract surgery
7267300	Phacoemulsification lens insertion prosthetic replacement	cataract surgery
7267311	Phacoemulsification lens insertion prosthetic replacement	cataract surgery
7267500	Insertion of prosthetic replacement for lens NEC	cataract surgery
7267600	Cataract extraction and insertion of intraocular lens	cataract surgery
7267y00	Other specified prosthesis of lens	cataract surgery
7267z00	Prosthesis of lens NOS	cataract surgery
7268.00	Other operations on lens	cataract surgery
7268000	Capsulectomy	cataract surgery
7268100	Couching of lens	cataract surgery
7268400	Magnetic extraction of foreign body from lens	other ocular surgery - 3 - traumatic
7268500	Reposition lens	cataract surgery
7268600	Insertion of lens capsule tension ring	cataract surgery
7268y00	Other specified other operation on lens	cataract surgery
7268z00	Other operation on lens NOS	cataract surgery
726y.00	Anterior chamber of eye or lens operations OS	cataract surgery
726z.00	Anterior chamber of eye and lens operations NOS	cataract surgery
727..00	Retina and other parts of eye operations	other ocular surgery - 2 - vitreous body
7270.00	Operations on vitreous body	other ocular surgery - 2 - vitreous body
7270000	Extirpation of vitreous body using anterior approach	other ocular surgery - 2 - vitreous body
7270011	Anterior vitrectomy	other ocular surgery - 2 - vitreous body
7270100	Extirpation of vitreous body NEC	other ocular surgery - 2 - vitreous body
7270B11	Anterior vitrectomy	other ocular surgery - 2 - vitreous body
7270D00	Injection of Ranibizumab into vitreous body	intravitreal injection (see also drugcodes)
7270y00	Other specified operation on vitreous body	other ocular surgery - 2 - vitreous body
7270z00	Operation on vitreous body NOS	other ocular surgery - 2 - vitreous body
7272000	Cauterisation of lesion of retina	other ocular surgery - 1 - retinal

7273600	Retinotomy NEC	other ocular surgery - 1 - retinal
7273y00	Other specified other operation on retina	other ocular surgery - 1 - retinal
7274200	Suture of eye NEC	other ocular surgery - 3 - traumatic
7274611	Aspiration of choroidal fluid	other ocular surgery - 3 - traumatic
7277600	Injection of therapeutic substance into macula	intravitreal injection (see also drugcodes)
7277y00	Other specified operations on retinal membrane	other ocular surgery - 1 - retinal
7278000	Pigment epithelium translocation of retina	other ocular surgery - 1 - retinal
727C100	Injection of steroid into posterior segment of eye	intravitreal injection (see also drugcodes)
727C200	Injection therapeutic substance posterior segment of eye NEC	intravitreal injection (see also drugcodes)
7J03300	Reduction of closed fracture of orbit bone	ocular trauma
7J13300	Reduction of blowout fracture of orbital floor	ocular trauma
7L1P500	Intraocular administration of therapeutic substance	intravitreal injection (see also drugcodes)
A173000	Tuberculous chorioretinitis	other eye infection
A173100	Tuberculous episcleritis	other eye infection
A173200	Tuberculous interstitial keratitis	other eye infection
A173400	Tuberculous keratoconjunctivitis	other eye infection
A173z00	Tuberculosis of eye NOS	other eye infection
A532.00	Herpes zoster with ophthalmic complication	other eye infection
A532300	Ophthalmic herpes zoster infection	other eye infection
A532400	Herpes zoster ophthalmicus	other eye infection
A532z00	Herpes zoster with other ophthalmic complication	other eye infection
A544.00	Ophthalmic herpes simplex	other eye infection
A544000	Unspecified ophthalmic herpes	other eye infection
A544400	Herpes simplex iridocyclitis	other eye infection
A544500	Herpes simplex ophthalmicus	other eye infection
A544z00	Ophthalmic herpes simplex NOS	other eye infection
A76..00	Trachoma	other eye infection
A761.00	Trachoma - active stage	other eye infection
A761.11	Trachoma inclusion conjunctivitis	other eye infection
A76z.00	Unspecified trachoma	other eye infection
A915.00	Uveitis due to secondary syphilis	other eye infection
A984.00	Gonococcal eye infection	other eye infection
A984011	Ophthalmia neonatorum - gonococcal	other eye infection
AD01.00	Toxoplasma conjunctivitis	other eye infection
AD02.00	Toxoplasma chorioretinitis	other eye infection
F400.00	Purulent endophthalmitis	endophthalmitis
F400100	Acute endophthalmitis	endophthalmitis
F400200	Panophthalmitis	endophthalmitis
F400400	Vitreous abscess	other eye infection
F400z00	Purulent endophthalmitis NOS	endophthalmitis
F401.00	Other endophthalmitis	endophthalmitis
F401100	Panuveitis	other eye infection
F401400	Phacoanaphylactic endophthalmitis	endophthalmitis
F401z00	Other endophthalmitis NOS	endophthalmitis
F403400	Flat anterior chamber	other ocular surgery - 3 - traumatic
F405.00	Old intraocular magnetic foreign body	ocular trauma
F421A11	Retinitis proliferans	other eye infection
F430.00	Focal chorioretinitis and retinochoroiditis	other eye infection
F430.11	Retinitis and chorioretinitis	other eye infection
F430000	Unspecified focal chorioretinitis	other eye infection

F430z00	Focal chorioretinitis or retinochoroiditis NOS	other eye infection
F431000	Unspecified disseminated chorioretinitis	other eye infection
F431300	General disseminated chorioretinitis	other eye infection
F431400	Metastatic disseminated retinitis	other eye infection
F431500	Pigmented epithelial disseminated retinitis	other eye infection
F431z00	Disseminated chorioretinitis and retinochoroiditis NOS	other eye infection
F432.00	Other chorioretinitis and retinochoroiditis	other eye infection
F432100	Retinitis NOS	other eye infection
F432200	Posterior uveitis NOS	other eye infection
F432300	Posterior cyclitis	other eye infection
F432z00	Other chorioretinitis or retinochoroiditis NOS	other eye infection
F44..12	Iridocyclitis	other eye infection
F440.00	Acute and subacute iridocyclitis	other eye infection
F440.11	Iritis - acute	other eye infection
F440000	Unspecified acute iridocyclitis	other eye infection
F440100	Unspecified subacute iridocyclitis	other eye infection
F440200	Primary iridocyclitis	other eye infection
F440300	Recurrent iridocyclitis	other eye infection
F440600	Hypopyon	other eye infection
F440z00	Acute or subacute iritis NOS	other eye infection
F441.00	Chronic iridocyclitis	other eye infection
F441.11	Chronic iritis	other eye infection
F441000	Unspecified chronic iridocyclitis	other eye infection
F441200	Chronic anterior uveitis	other eye infection
F441z00	Chronic iridocyclitis NOS	other eye infection
F442000	Fuchs' heterochromic cyclitis	other eye infection
F442100	Glaucomatocyclitic crises	other eye infection
F442z00	Certain types of cyclitis NOS	other eye infection
F443.00	Unspecified iridocyclitis	other eye infection
F443.11	Uveitis NOS	other eye infection
F443000	Anterior uveitis	other eye infection
F443100	Iritis	other eye infection
F446.00	Cysts of iris, ciliary body and anterior chamber	other eye infection
F447C00	Iridodialysis	ocular trauma
F456500	Glaucoma due to ocular trauma	ocular trauma
F462.00	Traumatic cataract	ocular trauma
F462100	Localised traumatic opacities	ocular trauma
F462z00	Traumatic cataract NOS	ocular trauma
F4A0400	Hypopyon ulcer	other eye infection
F4A0600	Perforated corneal ulcer	other eye infection
F4G0200	Orbital abscess	other eye infection
F4G4700	Orbit deformity due to trauma	ocular trauma
S01..16	Orbital roof fracture	head & neck injury
S026.00	Closed orbital blow-out fracture	ocular trauma
S027.00	Open orbital blow-out fracture	ocular trauma
S028100	Fracture of orbital floor	ocular trauma
S02x100	Fracture of orbit NOS, closed	head & neck injury
S02y100	Fracture of orbit NOS, open	head & neck injury
S570012	Whiplash injury	head & neck injury
S570400	Whiplash injury	head & neck injury
S81..00	Open wound of eyeball	ocular trauma
S81..11	Ocular open wound	ocular trauma
S81..12	Open wound of eye	ocular trauma
S810.00	Ocular laceration without intraocular prolapse	ocular trauma
S811.00	Ocular laceration with intraocular prolapse	ocular trauma
S812.00	Eye rupture with partial loss of intraocular tissue	ocular trauma
S815.00	Magnetic foreign body penetrating the eyeball	ocular trauma
S816.00	Nonmagnetic foreign body penetrating the eyeball	ocular trauma
S817.00	Ocular penetration, unspecified	ocular trauma
S818.00	Intraocular foreign body	ocular trauma

S818.11	Foreign body in eyeball	ocular trauma
S81z.00	Open wound of eyeball NOS	ocular trauma
SC39.00	Sequelae of injury of eye and orbit	ocular trauma
SE1..00	Contusion, eye and adnexa	ocular trauma
SE1..11	Bruise of eye	ocular trauma
SE10.00	Black eye NOS	ocular trauma
SE11.00	Contusion, eyelids and periocular tissues	ocular trauma
SE11.12	Bruise of periocular tissue	ocular trauma
SE12.00	Contusion, orbital tissues	ocular trauma
SE13.00	Contusion, eyeball	ocular trauma
SE14.00	Commotio retinae	ocular trauma
SE1z.00	Contusion, eye NOS	ocular trauma
SF0..00	Crush injury, face, scalp and neck	head & neck injury
SF0..11	Crush injury of head	head & neck injury
SF00.00	Crush injury, face	head & neck injury
SH0..00	Burn confined to eye and adnexa	ocular trauma
SH00.00	Chemical burn of eyelids and periocular area	ocular trauma
SH01.00	Other burns of eyelids and periocular area	ocular trauma
SH0z.00	Burn confined to eye and adnexa NOS	ocular trauma
SH10200	Unspecified thickness burn of the eye	ocular trauma
SH13200	Full thickness burn of the eye	ocular trauma
SH14200	Deep full thickness burn of eye without loss of body part	ocular trauma
SJ0z.11	Blindness - traumatic - NOS	head & neck injury
SJ18.00	Contusion infraorbital nerve	ocular trauma
SP05500	Mechanical complication of intraocular lens	ocular trauma
Syu0A00	[X]Penetrating wound of orbit with or without foreign body	ocular trauma
Syu0B00	[X]Other injuries of eye and orbit	ocular trauma
TF4..00	Foreign body accidentally entering eye and adnexa	ocular trauma
U11Q.00	[X]Foreign body entering into/through eye/natural orifice	ocular trauma
U11Q200	[X]F/b enter in/thro eye/natr orif sch oth inst/pub adm area	ocular trauma
ZV45611	[V]State following cataract extraction	cataract surgery
7270300	Injection into vitreous body NEC	intravitreal injection (see also drugcodes)
7270C00	Injection of vitreous substitute into vitreous body NEC	intravitreal injection (see also drugcodes)

