

YCC West Midlands

**ANNUAL REPORT
2015/16**

ANNUAL REPORT OF YELLOW CARD CENTRE WEST MIDLANDS TO THE MEDICINES AND HEALTHCARE PRODUCTS REGULATORY AGENCY

2015/16

1. STAFF

Professor R E Ferner – Director
Professor J J Coleman – Honorary Consultant Physician
Mr C Anton – Administrative Co-ordinator
Mrs K Badyal (née Khangura) – Pharmacovigilance Pharmacist
Dr A R Cox – Honorary Pharmacovigilance Pharmacist
Ms M Robinson – Clerical Officer

2. SUMMARY

Our priorities for the year remain focused on teaching and providing information and we have continued our programmes for all grades of staff from nurses to consultants. We have continued to expand our network of ADR Champions and now have someone in each of the acute Trusts. Work is continuing to recruit Champions in community and mental health trusts.

The number of reports from the region rose for the third year in a row with the total numbers up by 22%. There was an increase of 90% in reports from hospital pharmacists and 77% from community pharmacists. The number of patient reports increased and was maintained at 20% of all our reports. The proportion of reports containing a serious reaction increased to the highest level for a number of years

3. YELLOW CARD DATA

Number of reports

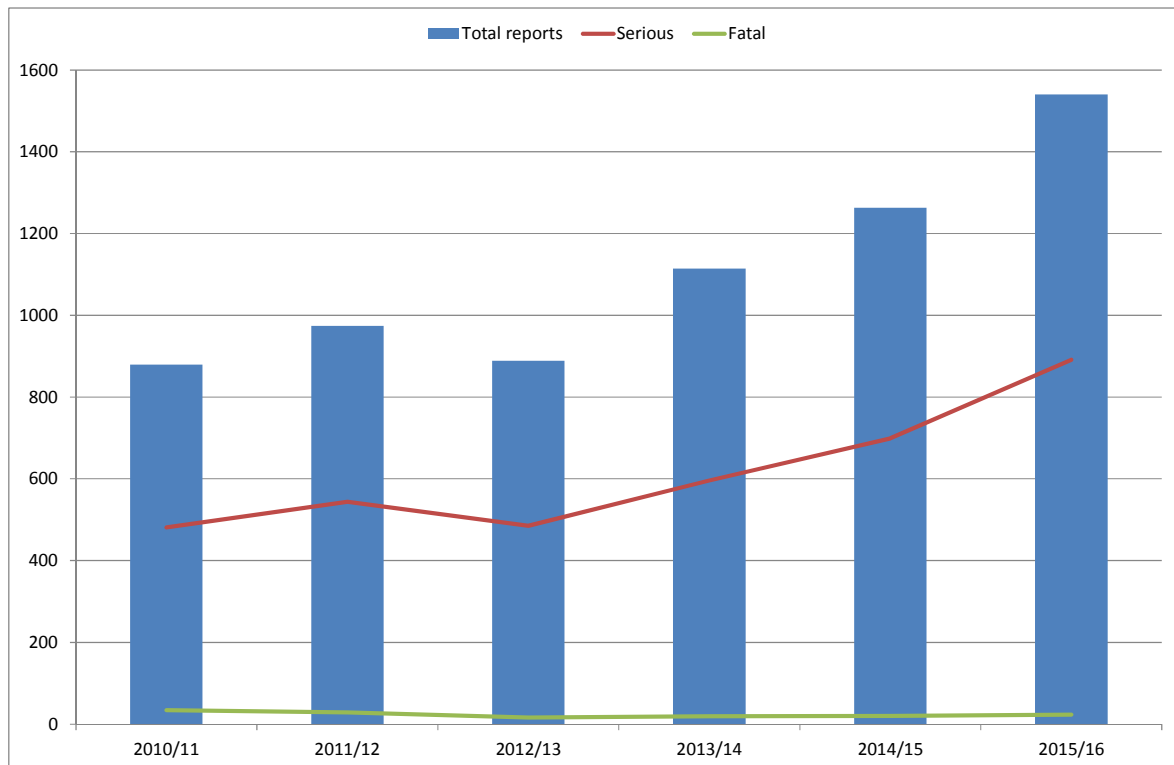
Year	Number of reports	As a percentage of national reports
2015/16	1540	6.6%
2014/15	1263	6.5%
2013/14	1114	6.4%
2012/13	889	6.2%
2011/12	974	7.4%

Serious reports

Year	Number of serious reports	As percentage of total reports
2015/16	891	58%
2014/15	699	55%
2013/14	596	54%
2012/13	485	55%
2011/12	544	56%

Fatal reports

Year	Number of fatal reports	As percentage of total reports
2015/16	23	1.5%
2014/15	20	1.6%
2013/14	19	1.7%
2012/13	16	1.8%
2011/12	29	3%



Age banding

Age range	Percentage of reports 2015/16	Percentage of reports 2014/15	Percentage of reports 2013/14	Percentage of reports 2012/13	Percentage of reports 2011/12
<18	11%	13%	12%	8%	9%
18-24	6%	6%	4%	6%	6%
25-34	9%	9%	8%	9%	9%
35-44	10%	9%	11%	11%	10%
45-54	13%	12%	14%	12%	16%
55-64	12%	12%	14%	14%	13%
65-74	17%	18%	16%	20%	17%
75-84	13%	11%	13%	11%	10%
>85	5%	4%	2%	5%	3%
unknown	4%	5%	4%	5%	6%
Total	1540	1263	1114	889	974

Source of report

Reporter qualification	2015/16	2014/15	2013/14	2012/13	2011/12
Carer	7	11	9	6	7
Community Pharmacist	83	47	90	61	44
Coroner		2	1	1	
Dentist	4	5	8	1	3
GP	325	279	248	236	229
Healthcare Assistant		1	3		2
Hospital Doctor	174	176	155	144	191
Hospital Health Professional	16	36	31	48	63
Hospital Nurse	97	128	85	60	68
Hospital Pharmacist	230	121	92	98	68
Nurse	181	115	131	91	102
Other Health Professional	20	47	39	26	45
Parent	49	22	24	11	10
Patient	301	254	135	77	84
Pharmacist	14		16	8	28
Pharmacy Assistant	7				
Physician	3	7	11	8	12
Pre-reg Pharmacist	16				
Radiographer	9	7	11	10	21

Report type

Report type	2015/16	2014/15
eYC	988	768
Paper	214	275
GP systems		117
TPP	297	61
MiDB	41	37

We have created a number of additional graphs to examine some local trends in reporting.

Figure 1: All Patient Reports (combined patient, carer, and parent reports)

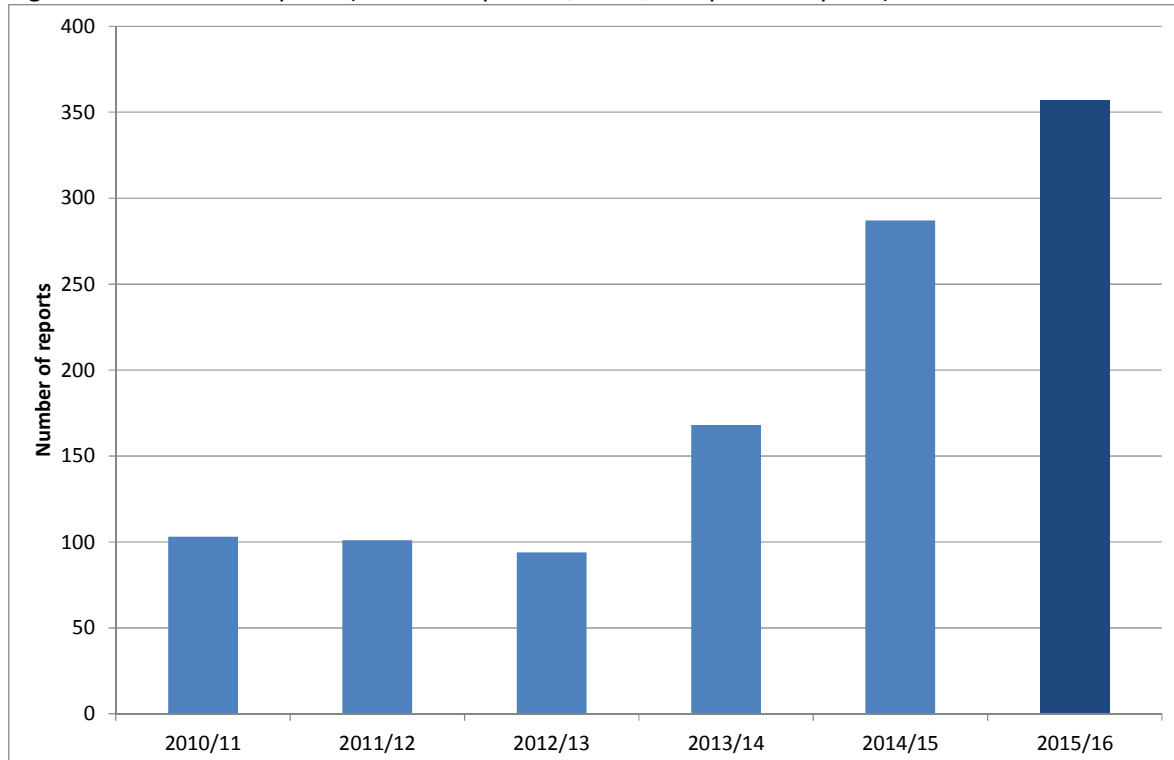


Figure 2: All hospital Reports (Combination of hospital doctor, hospital nurse, hospital pharmacist & hospital other healthcare professional)

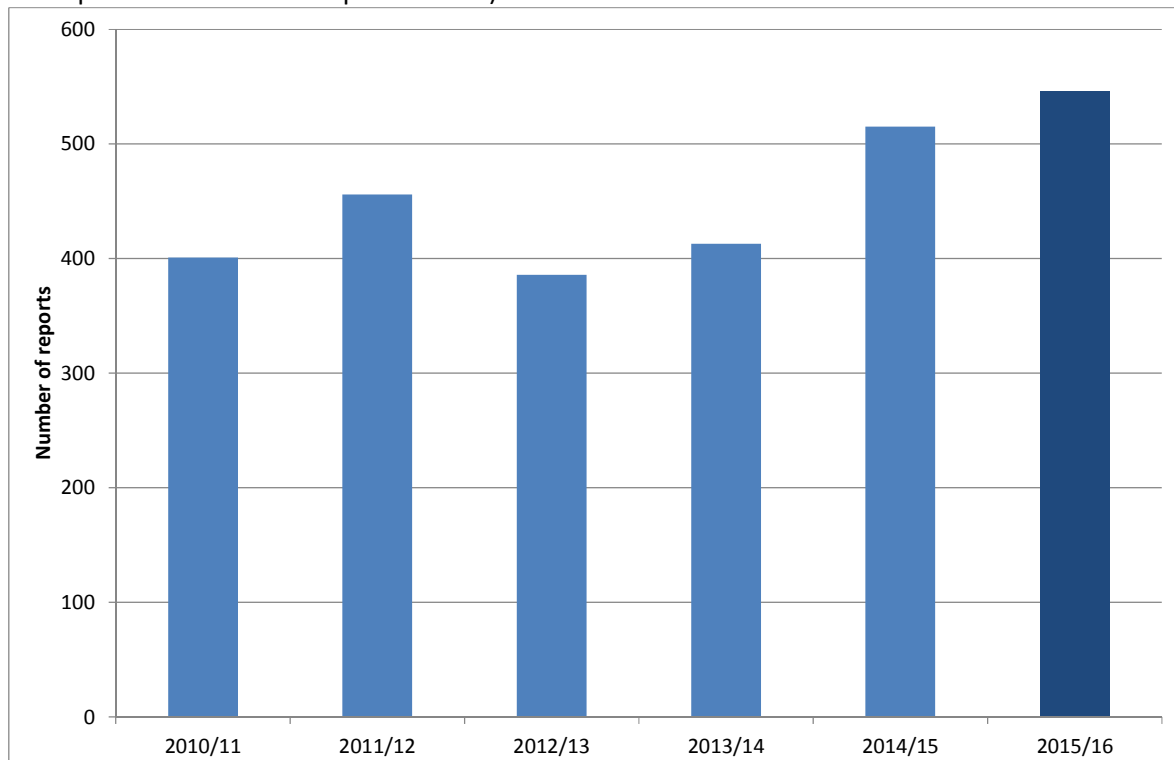


Figure 3: All Pharmacist Reports (Combination of pharmacist, community pharmacist, & hospital pharmacist).

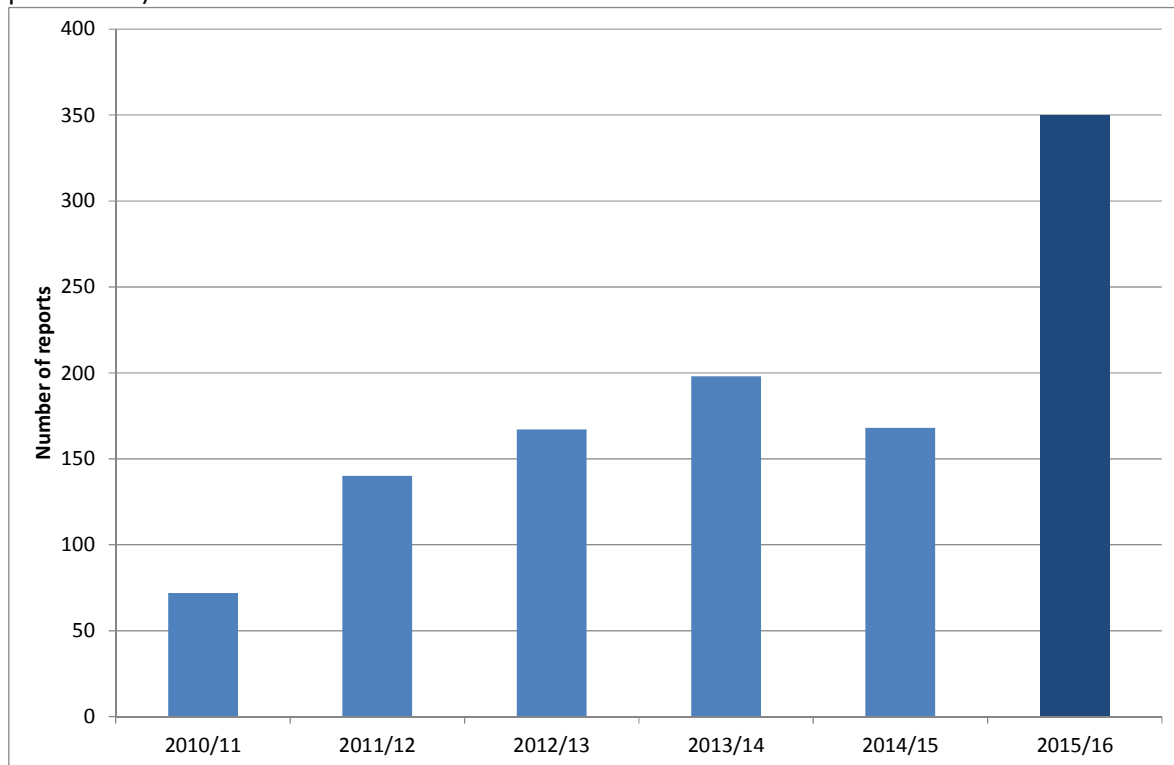


Figure 4: Hospital Doctor Reports

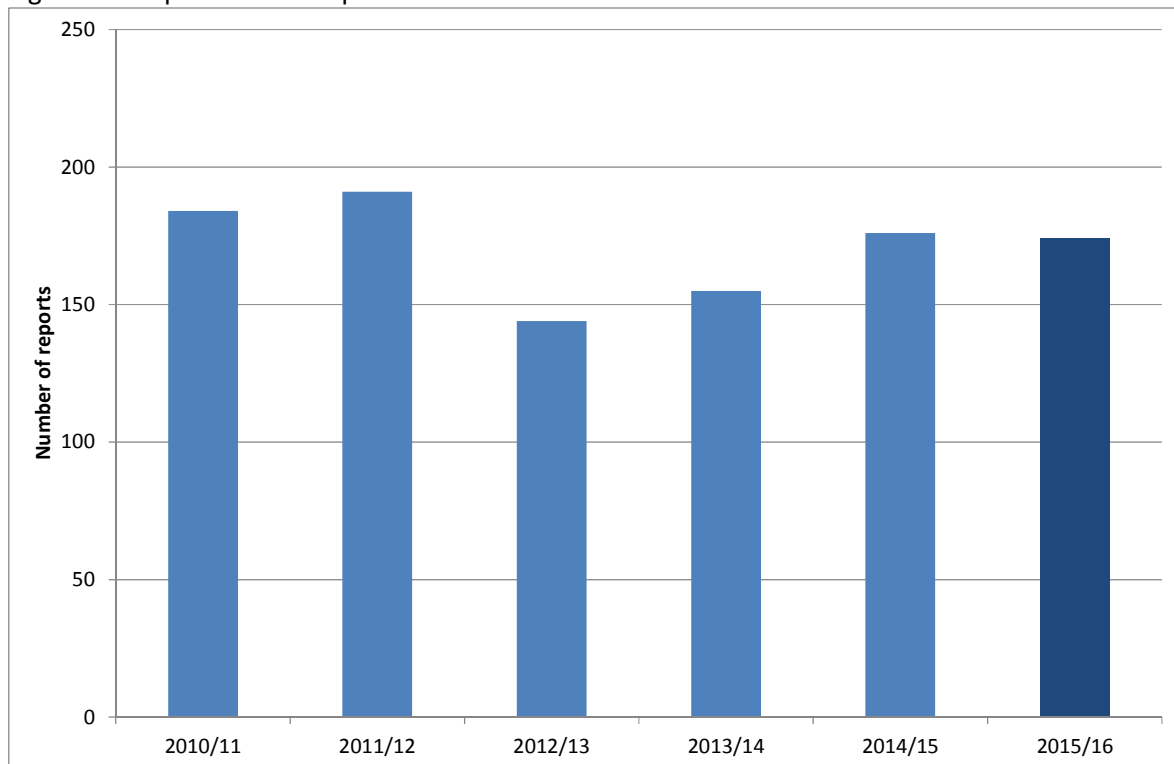


Figure 5: All Healthcare Professional Reports

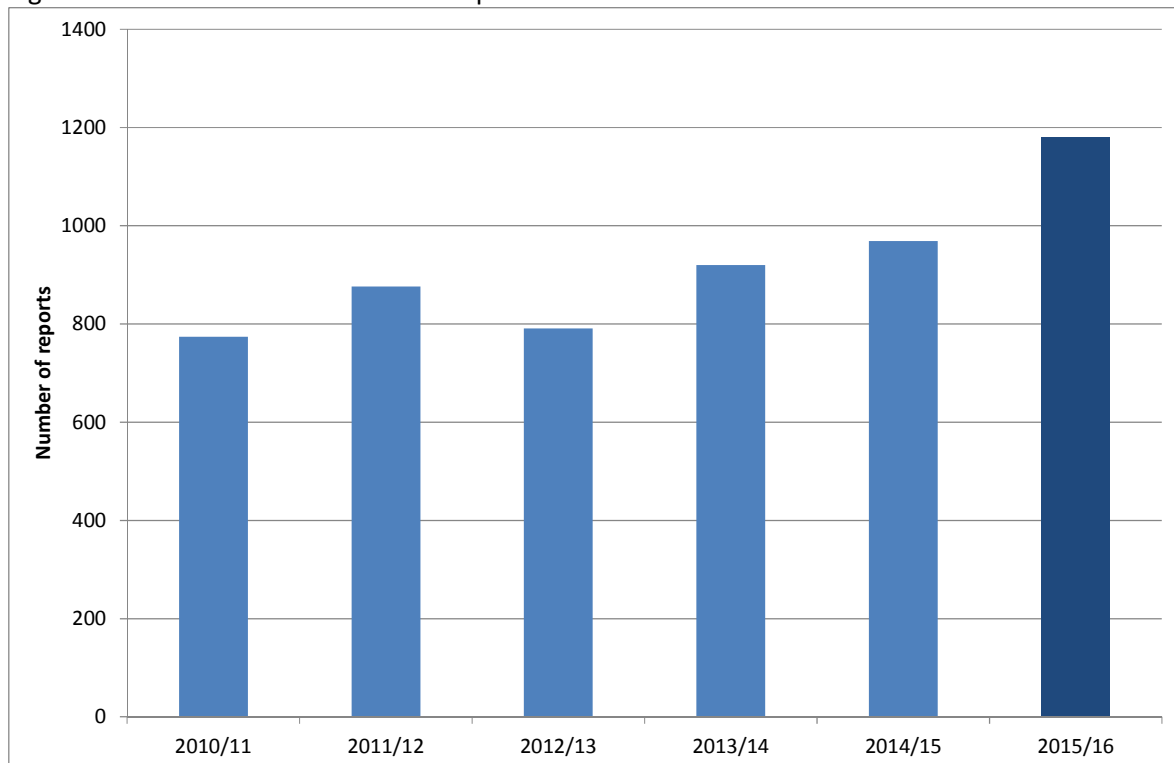


Figure 6: All Nurse Reports (Nurse, and Hospital Nurse)

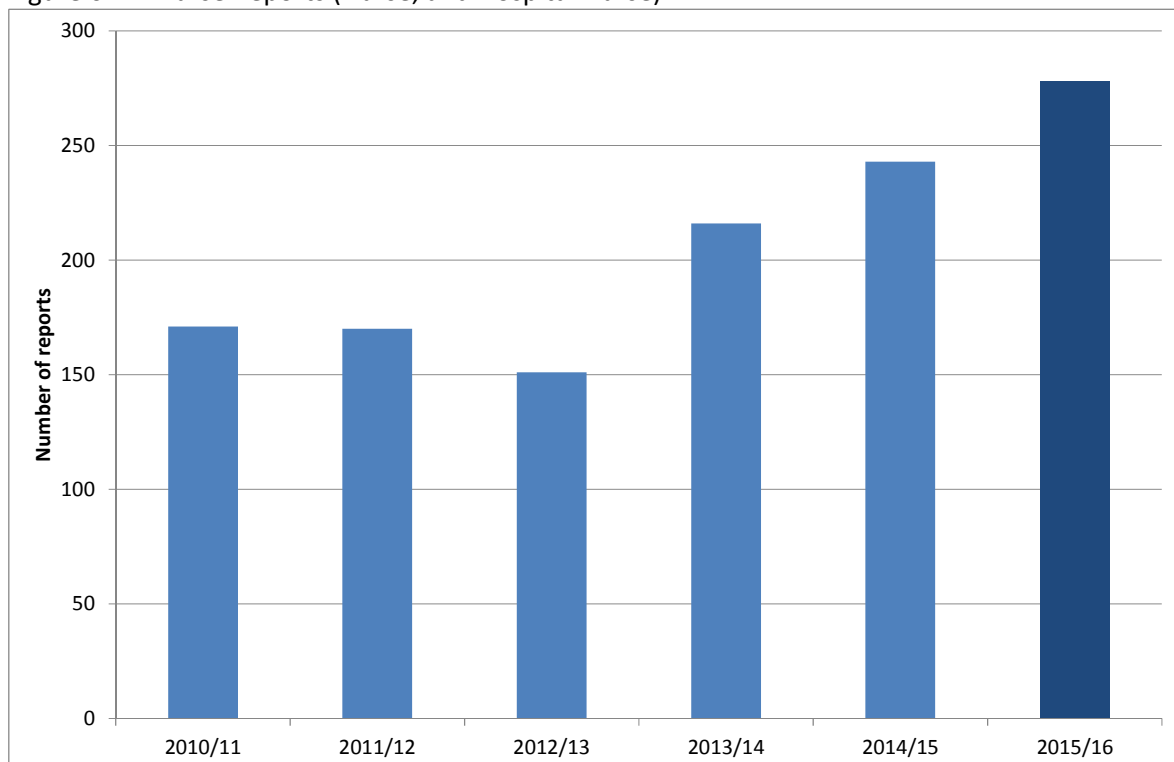
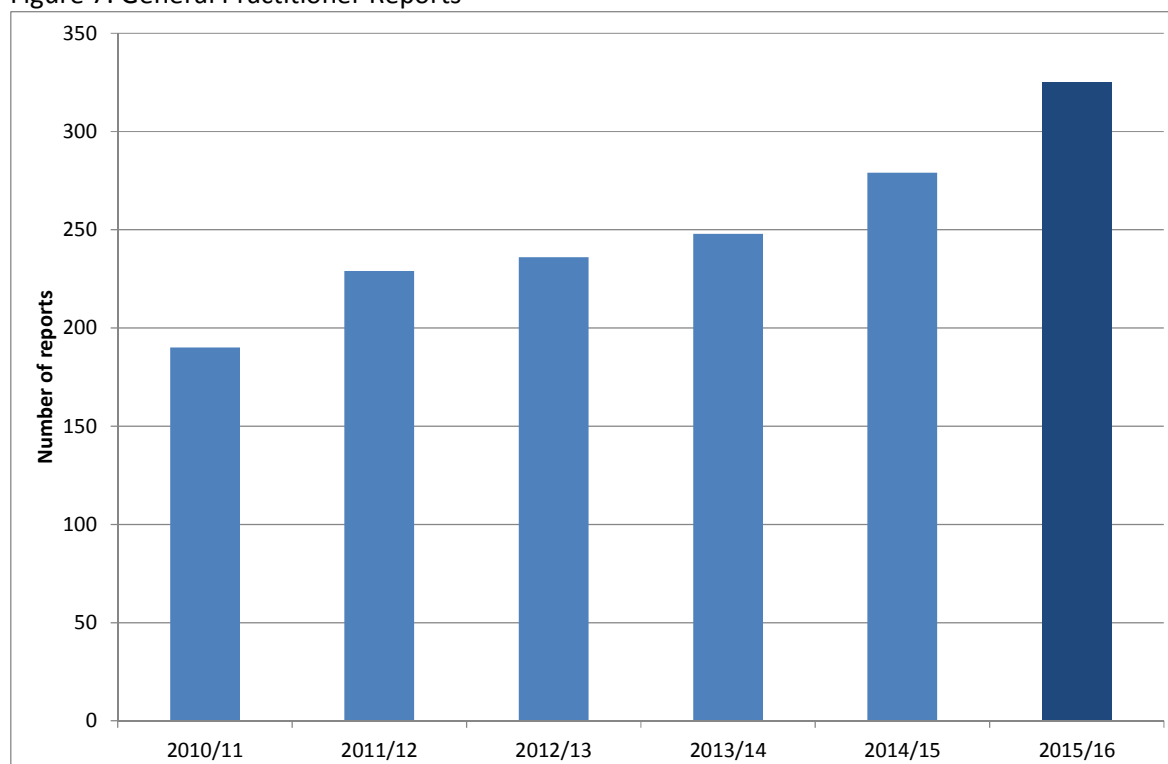


Figure 7: General Practitioner Reports



Top 10 drugs

The top 13 drugs listed as suspect drug are shown below

Drug	Total
rivaroxaban ▼	73
influenza virus	54
phenoxymethylpenicillin	53
meningitis B vaccine ▼	35
dapagliflozin ▼	28
apixaban	22
sertraline	22
clarithromycin	20
human papillomavirus ▼	19
atorvastatin	19
varicella zoster virus	19
amoxicillin	19
warfarin	19

4. PROMOTIONAL ACTIVITIES

We have promoted the scheme with numerous talks and lectures during the year. Details of them are listed below.

Meetings

Professor Coleman attended meetings of PEAG and deputised for Professor Pimohamed at CHM during one meeting

We held a successful Champions Away Day in October 2015

Professor Ferner received a commendation from the Chief Constable, Greater Manchester Police for his role in Operation Roxburgh

ADR Champions

We have now recruited ADR Champions at all the acute Trusts in the region and held a study day for them in October together with a follow-up teleconference.

Work is continuing to recruit Champions in mental health and community Trusts and in GP practices and CCGs.

Teaching

Meeting	Time	Number of participants	Number of sessions
Aston University ADRs for Pharmacy Prescribers	1 hour	20	1
Birmingham Community Trust – multidisciplinary	1 hour	24	1
Brittle Bones patient group x 30 patients	1 hour	30	1
Burton Hospital FY1 teaching	1 hour		1
City Hospital Grand Round	1 hour	40	1
Grand Round – Dudley Hospital	1 hour	50	1
Grand round – Good Hope x 25	1 hour	25	1
Grand Round – University Hospital of North Midlands	1 hour	120	1
Grand Round –New Cross	1 hour	25	1
Haywood Hospital – lunchtime talk (multidisciplinary)	1 hour	22	1
Heartlands Grand Round	1 hour		1
Innovation day	20 minutes	50	1
Leicester Patient Safety event	3 hours	250	2
MAU City Hospital pharmacy team	1 hour	2	1
Pharmacists meeting Stafford – 8 x pharmacists	1 hour	8	1
RCGP/RPS Birmingham meeting	2.5 hours	100	1
Regional dentists	1 hour	16	1
Royal Orthopaedic Hospital	1 hour	5	1
Sandwell and West Birmingham Hospitals FY1 workshop	30 minutes	20	1
Sandwell and West Birmingham Hospitals FY1 workshop	30 minutes	11	
Sandwell and West Birmingham Hospitals new pharmacists	30 minutes	5	1
Sandwell and West Birmingham Hospitals new pharmacists	30 minutes	6	1
Stoke Pharmacists	1 hour	25	1
Teaching by HEFT Champion at Solihull	1 hour	7	1
Teaching by HEFT Champion at Solihull	1 hour	9	1
Teaching by HEFT Champion to FY2	1 hour	35	1
Teaching by Hereford Champion to pharmacists	1 hour	7	1
Teaching by Walsall Champion to non-medical prescribers	1 hour	30	1

Undergraduate Dentists	1 hour	50	1
University Hospital Birmingham pharmacists' meeting	1 hour	21	1
University of Birmingham ADR symposium	3 hours	30	2
University of Birmingham undergraduate Pharmacy lectures	1 hour	60	7
Walsall non-medical prescribers	1 hour	30	1
Warwick pharmacists' meeting	1 hour	9	1

Lectures given include

- Ferner RE, European Association of Poison Control Centres and Clinical Toxicologists, Malta, May 2015: "Toxic deaths"
- Khangura, K. International Society of Pharmacovigilance Annual Meeting, Prague, October 2015: "Enforcing the habit – the role of champions in pharmacovigilance education"
- Ferner RE, National Institute for Health and Care Excellence Annual Meeting, Birmingham, December 2015: "Reflections on appeals."
- Ferner RE, British Association of Forensic Sciences, London, January 2016: "Investigation of drug-induced death"
- Ferner RE, Baker Street Irregulars, St George's Hospital, London, February 2016: "Medicinal aspects of murder."
- Ferner RE, Royal College of Physicians' Annual Conference, Harrogate, March 2016: "Wise Prescribing."

6. PUBLICATIONS AND CONFERENCES

Publications for 2015/16 include:

Aronson JK, Ferner RE. The Law of Mass Action and the pharmacological concentration-effect curve: resolving the paradox of apparently non-dose-related adverse drug reactions. *Br J Clin Pharmacol* 2016; 81: 56-61

Aronson JK, Ferner RE. A licence to cure: When there is sufficient evidence of quality, efficacy, and safety, the cheapest product should be prescribable. *BMJ* 2015; 350: h1723

Barber J, McKeever TM, McDowell SE, Clayton JA, Ferner RE, Gordon RD, Stowasser M, O'Shaughnessy KM, Hall IP, Glover M. A systematic review and meta-analysis of thiazide-induced hyponatraemia: time to reconsider electrolyte monitoring regimens after thiazide initiation? *Br J Clin Pharmacol* 2015; 79(4): 566-77

Bradberry SM, Wilkinson JM, Ferner RE. Systemic toxicity related to metal hip prostheses. *Clin Toxicol (Phila)* 2014; 52(8): 837-47

Brooks HL, Pontefract SK, Hodson J, Blackwell N, Hughes E, Marriott JF, Coleman JJ. An evaluation of UK foundation trainee doctors' learning behaviours in a technology-enhanced learning environment. *BMC Med Educ.* 2016; 16(1):133.

Brown CL, Reygate K, Slee A, Coleman JJ, Pontefract SK, Bates DW, Husband AK, Watson N, Slight SP. A literature review of the training offered to qualified prescribers to use electronic prescribing systems: why is it so important? *Int J Pharm Pract.* 2016 Aug 4. doi: 10.1111/ijpp.12296. [Epub ahead of print]

Coleman JJ, Hodson J, Thomas S, Brooks HL, Ferner RE. Temporal and other factors that influence the time junior doctors take to prescribe using an electronic prescribing system. *Journal of the American Medical Informatics Association* 2015; 22: 206–12

Ferner RE, Cox AR. Drug-induced neurological disease. In: A new textbook of medicine. Davey P, Spriggings D, Eds. Oxford University Press (In press).

Ferner RE, Aronson JK. Cato Guldberg & Peter Waage, the history of the Law of Mass Action, and its relevance to clinical pharmacology. *Br J Clin Pharmacol.* 2016; 81(1): 52-5

Ferner RE. Adverse drug reactions in dermatology. *Clinical and Experimental Dermatology* 2015; 40(2): 105-9; quiz 109-10

Fox A, Pontefract S, Brown D, Portlock J, Coleman J. Developing consensus on hospital prescribing indicators of potential harm for infants and children. *Br J Clin Pharmacol.* 2016 Apr 1. doi: 10.1111/bcp.12954

Gogtay NJ, Ferner RE. Mefloquine for malarial prophylaxis in military personnel. *BMJ.* 2015; 351: h5797

Hauben M, Aronson JK, Ferner RE. Evidence of Misclassification of Drug-Event Associations Classified as Gold Standard 'Negative Controls' by the Observational Medical Outcomes Partnership (OMOP). *Drug Saf* 2016; 39: 421-3

Khan N, Cox AR, Cotton J. Pharmacokinetics and pharmacodynamics of oral P2Y12 inhibitors during the acute phase of a myocardial infarction: A systematic review. *Thrombosis Research* 2016; 143: 141-148

Lilford RJ, Girling AJ, Sheikh A, Coleman JJ, Chilton PJ, Burn SL, Jenkinson DJ, Blake L, Hemming K. Protocol for evaluation of the cost-effectiveness of ePrescribing systems and candidate prototype for other related health information technologies. *BMC Health Serv Res.* 2014;14:314.

Schofield B, Cresswell K, Westbrook J, Slee A, Girling A, Shah S, Coleman J, Sheikh A. The impact of electronic prescribing systems on pharmacists' time and workflow: protocol for a time-and-motion study in English NHS hospitals. *BMJ Open* 2015; 5:e008785.doi:10.1136/bmjopen-2015-008785

Seidling HM, Stütze M, Hoppe-Tichy T, Allenet B, Bedouch P, Bonnabry P, Coleman JJ, Fernandez-Llimos F, Lovis C, Rei MJ, Störzinger D, Taylor LA, Pontefract SK, van den Bemt PM, van der Sijs H, Haefeli WE. Best practice strategies to safeguard drug prescribing and drug administration: an anthology of expert views and opinions. *Int J Clin Pharm* 2016; 38(2): 362-73.

Whallett A, Coleman JJ. In the balance: evolving trends in the satisfaction of junior doctors inside and outside work. *Postgrad Med J.* 2016; 92(1086): 185-6. doi: 10.1136/postgradmedj-2016-133961.

We produced and distributed 2 editions of our *ad hoc* Bulletin, re:Action and edited 6 editions of the Adverse Drug reaction Bulletin

7. RESEARCH

Our current research activity is concerned with adverse drug reactions, including classification, monitoring, and the patient experience of adverse drug reactions and the Yellow Card scheme.