

**YCC West Midlands**

**ANNUAL REPORT  
2018/19**

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

2018/19

## 1. STAFF

Professor J J Coleman– Director  
Professor R E Ferner – Director Emeritus  
Dr J K Aronson – Honorary Consultant Physician  
Mr C Anton – Administrative Co-ordinator  
Mrs K Badyal – Pharmacovigilance Pharmacist (on maternity leave January 2019)  
Dr A R Cox – Honorary Pharmacovigilance Pharmacist  
Mrs T J Ahmad – Information Scientist (on maternity leave February 2019)

## 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 student nurses to consultants. We have continued to expand our network of ADR Champions and now have a champion in each of the acute Trusts. Work is continuing to recruit Champions in community and mental health trusts.

There was a small decrease in the number of reports received which mirrored a national trend. Patient reports continue to rise and they now comprise just over 30% of all the reports received. A small rise in the number of reports received from GPs continues but there are still no electronic solutions for GP reporting for the majority of GPs in the region.

We presented 4 posters at the International Society of Pharmacovigilance annual meeting in Geneva and these were based on the work of University of Birmingham MPharm students during the year.

## 3. YELLOW CARD DATA

*Number of reports*

Year	Number of reports	As a percentage of national reports
2018/19	1667*	5.7%
2017/18	1724	5.8%
2016/17	1668	6.2%
2015/16	1540	6.6%
2014/15	1263	6.5%

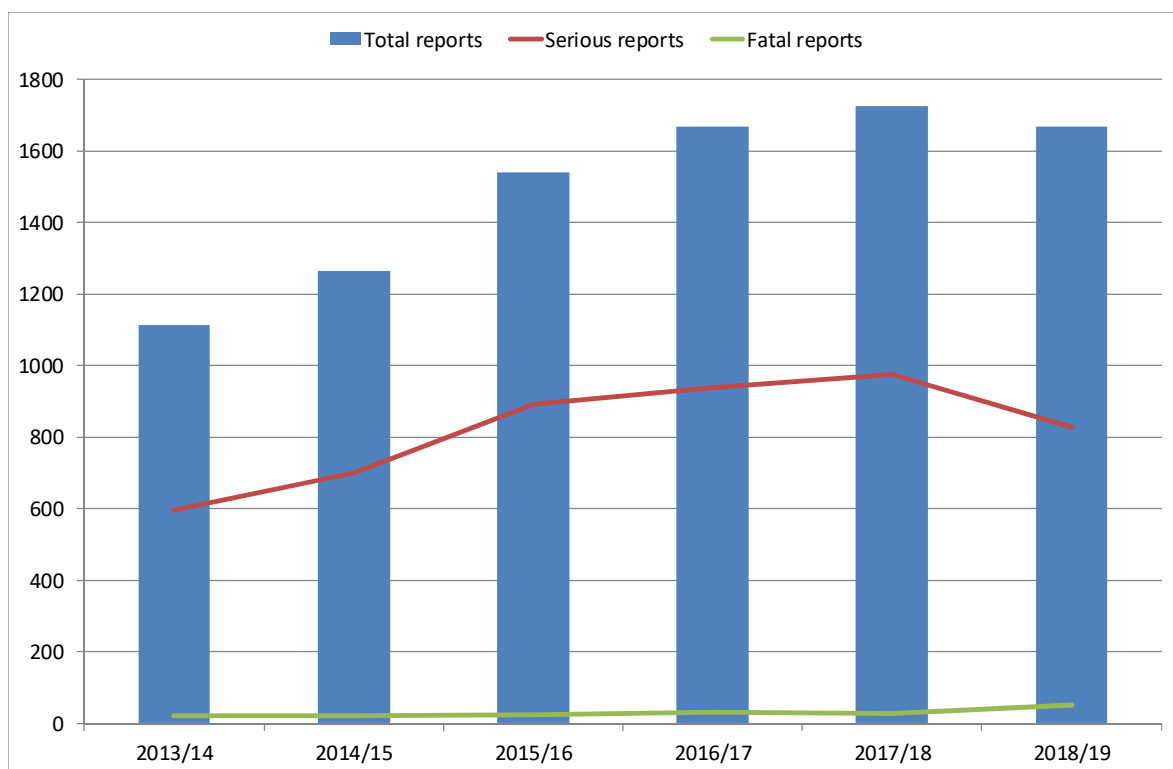
- We only have details of 1655 of these reports

### Serious reports

Year	Number of serious reports	As percentage of total reports
2018/19	826	50%
2017/18	976	57%
2016/17	937	56%
2015/16	891	58%
2014/15	699	55%

### Fatal reports

Year	Number of fatal reports	As percentage of total reports
2018/19	51	3.1%
2017/18	28	1.6%
2016/17	31	1.9%
2015/16	23	1.5%
2014/15	20	1.6%



### Age banding

Age range	Percentage of reports 2017/18	Percentage of reports 2017/18	Percentage of reports 2016/17	Percentage of reports 2015/16	Percentage of reports 2014/15
<18	11%	11%	11%	11%	13%
18-24	5%	6%	7%	6%	6%
25-34	10%	8%	9%	9%	9%
35-44	10%	9%	11%	10%	9%
45-54	12%	12%	11%	13%	12%
55-64	14%	15%	15%	12%	12%
65-74	17%	16%	16%	17%	18%
75-84	11%	12%	11%	13%	11%
>85	4%	4%	4%	5%	4%
unknown	5%	7%	6%	4%	5%
<b>Total</b>	<b>1667</b>	<b>1724</b>	<b>1668</b>	<b>1540</b>	<b>1263</b>

### Source of report

#### Report type

Report type	2018/19*	2017/18	2016/17	2015/16	2014/15
App	1				
eYC	1244	1291	1219	988	768
Paper	136	171	198	214	275
GP systems		14	6		117
TPP	247	228	104	297	61
MiDB	27	20	46	41	37

- We only have details for 1655 of the reports

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)

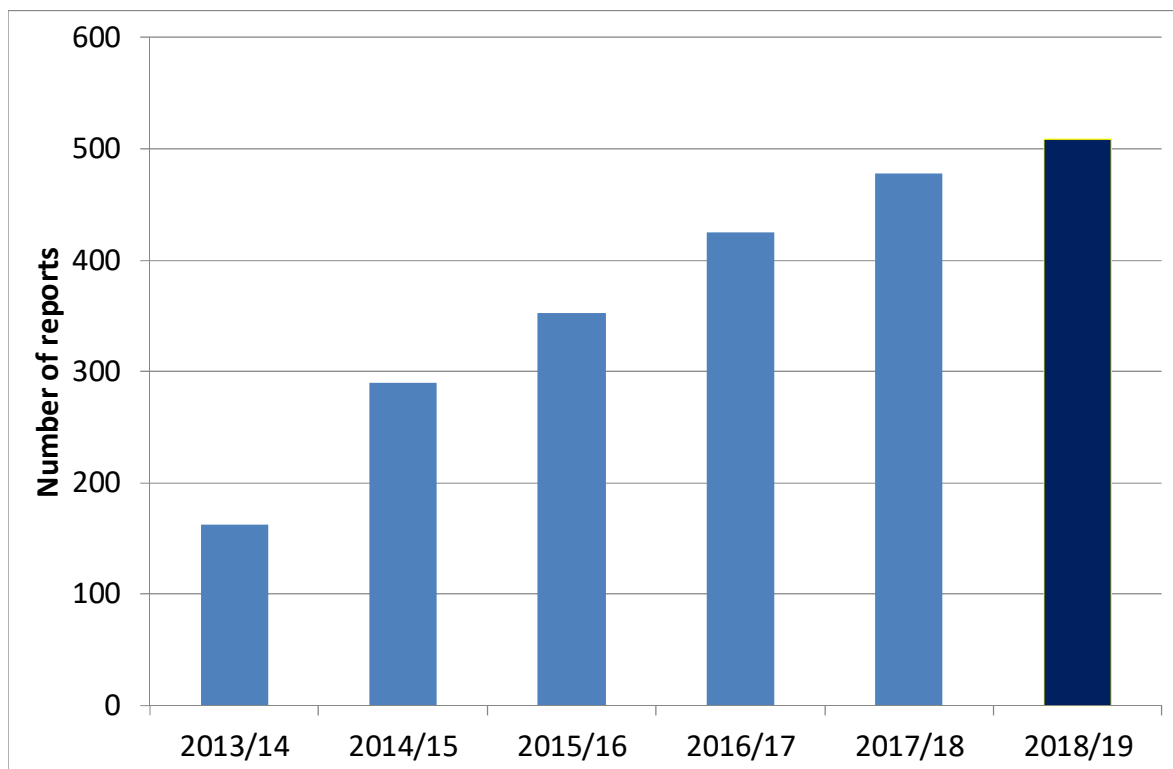


Figure 2: All hospital Reports (Combination of hospital doctor, hospital nurse, hospital pharmacist & hospital other healthcare professional)

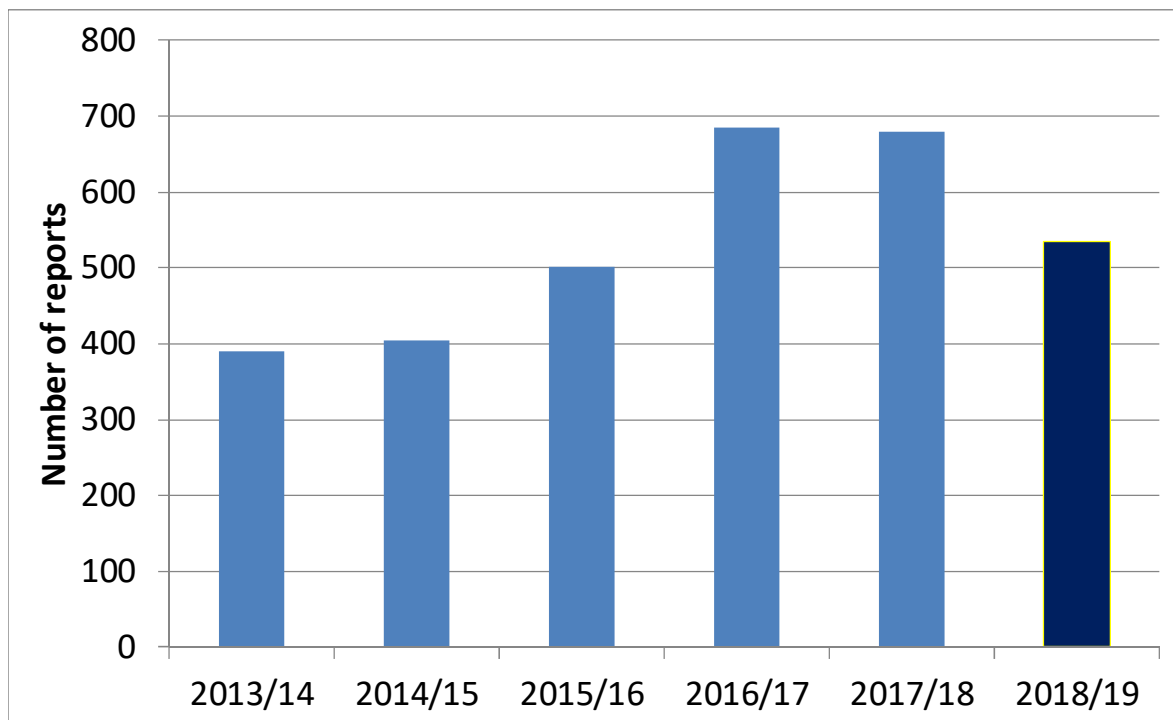


Figure 3: All Pharmacist Reports (Combination of pharmacist, community pharmacist, & hospital pharmacist).

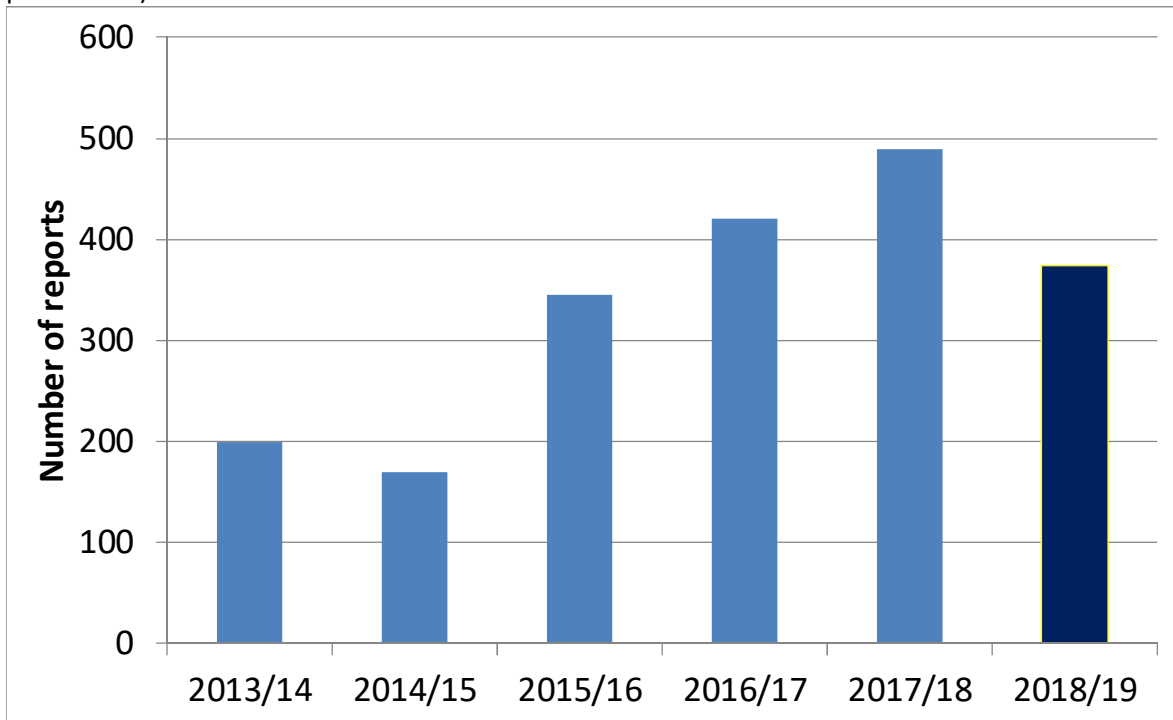


Figure 4: Hospital Doctor Reports

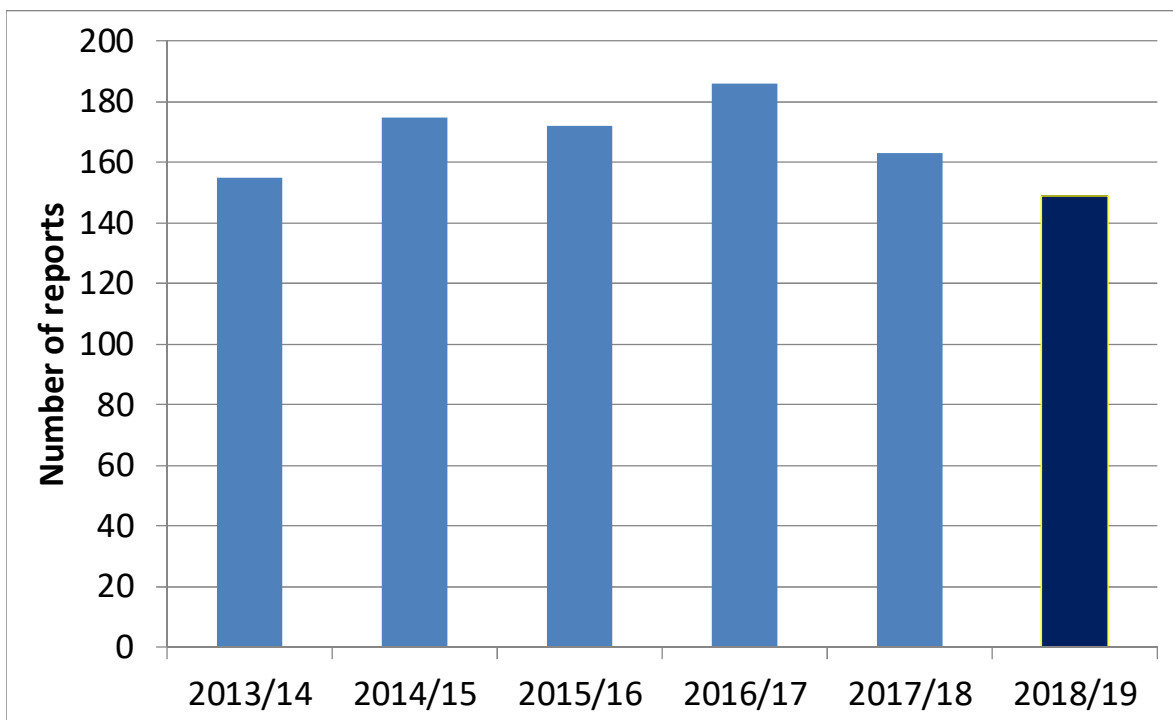


Figure 5: All Healthcare Professional Reports

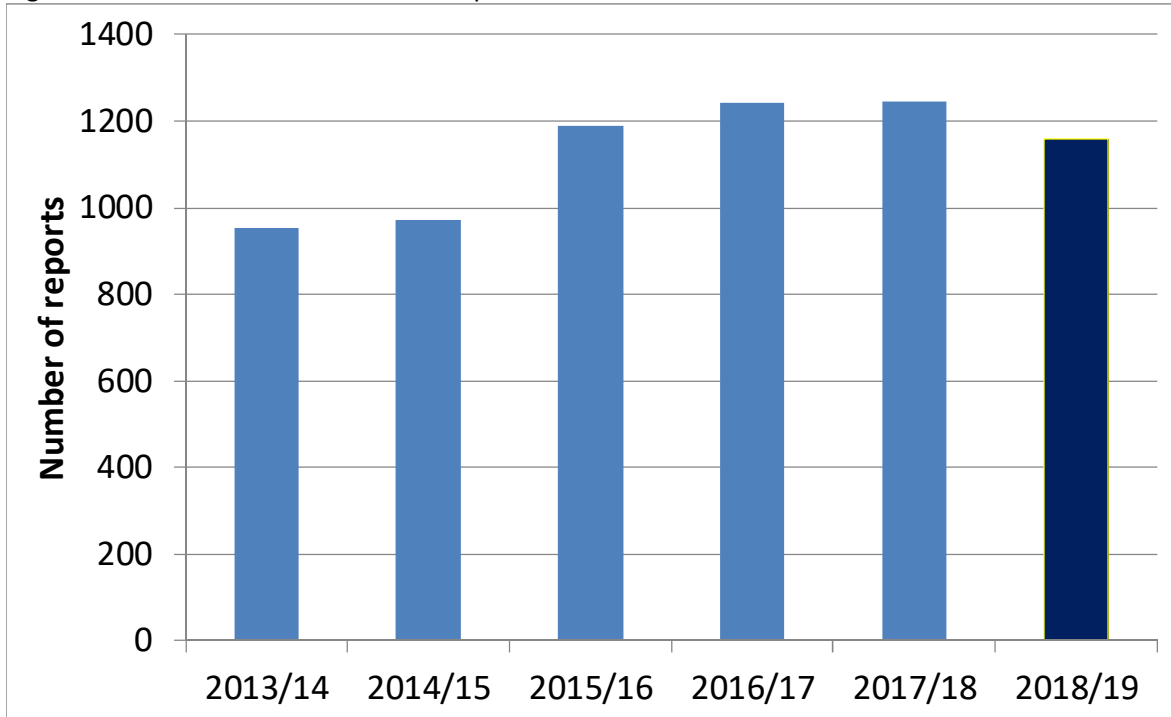


Figure 6: All Nurse Reports (Nurse, and Hospital Nurse)

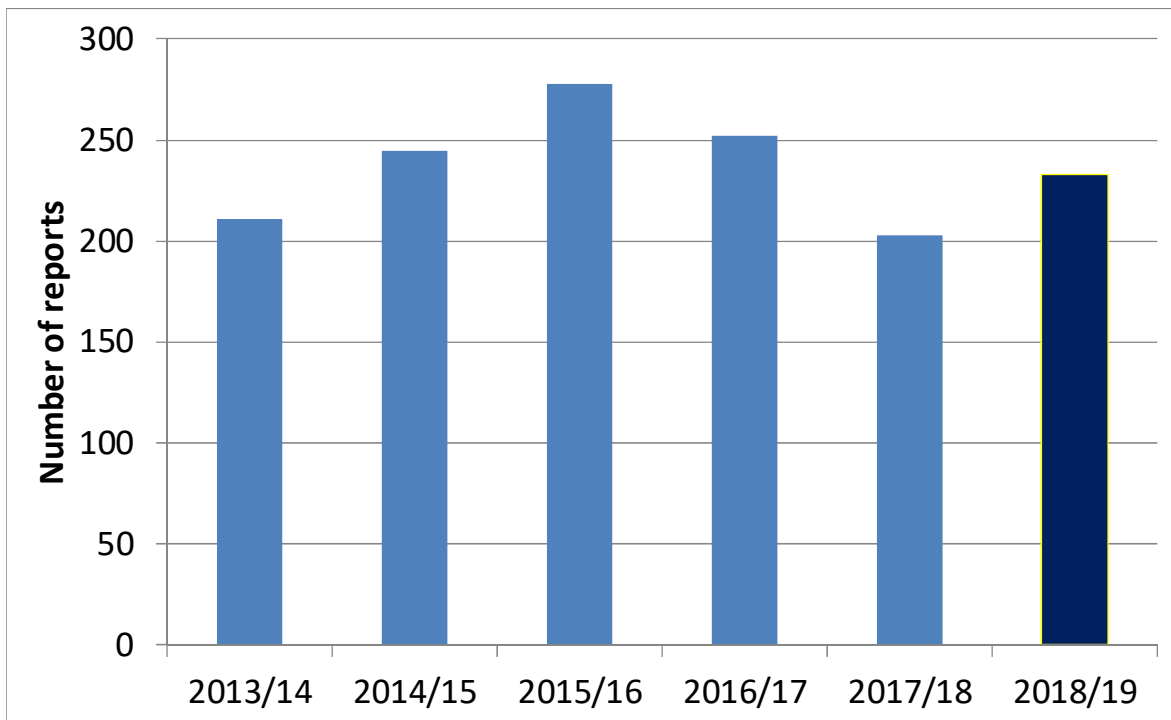
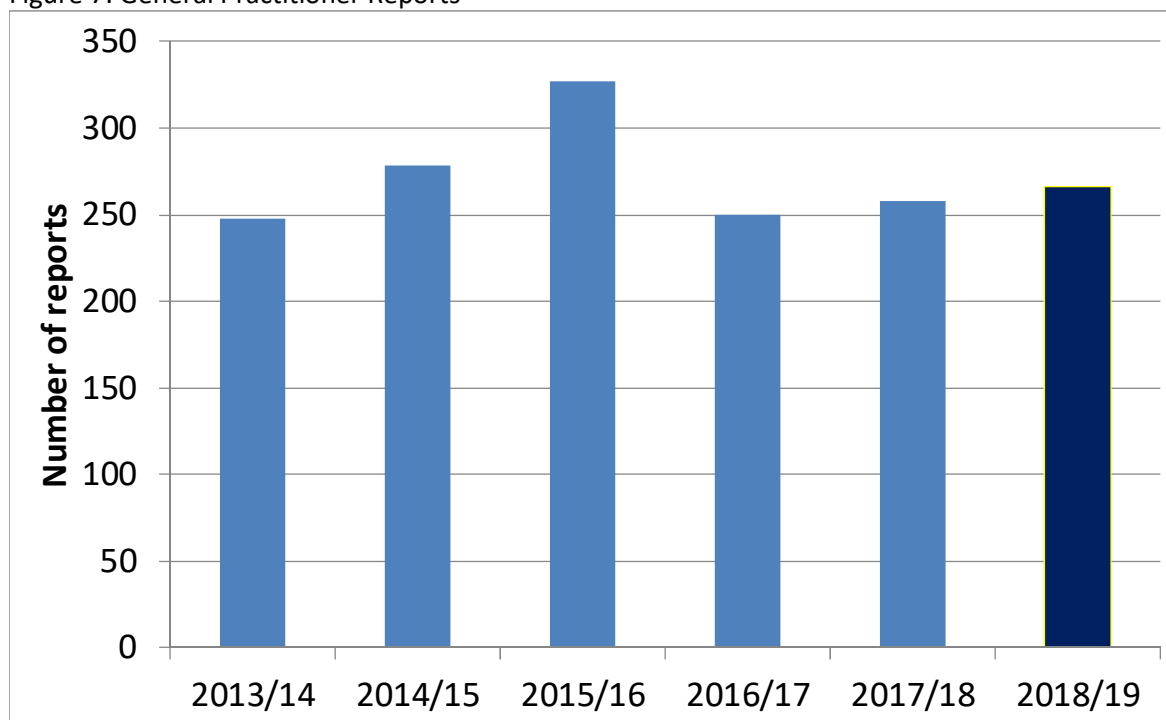


Figure 7: General Practitioner Reports



#### *Top 10 drugs*

The top 10 drugs listed as suspect drug are shown below

INFLUENZA VIRUS	127
APIXABAN	29
AMOXICILLIN	29
MMR VACCINE	27
NITROFURANTOIN	26
MENINGITIS B VACCINE	26
RIVAROXABAN	26
SERTRALINE	25
CLARITHROMYCIN	25
PHENOXYMETHYLPENICILLIN	22
RITUXIMAB	22
RAMIPRIL	22

#### **4. PROMOTIONAL ACTIVITIES**

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

##### **Meetings**

We attended the Reporter Groups meeting at the MHRA in June 2018 and the Annual General Meeting in September 2018.

We organised an ADR study day in November 2018 in Birmingham and this was targeted at ADR Champions and other interested parties. There were 6 lectures during the day including one giving



a patient's perspective on adverse drug reactions. There were 60 attendees from all over the region.

## Social Media

We participated in ADR Awareness Week in November 2018. The week saw a big engagement on our Twitter feed. Our Tweets earned over 54,400 impressions during the week and the following 3 weeks compared with an average of 6,000 during a similar period before Awareness week. During the year our number of Twitter followers increased from 540 to 967.

## ADR Champions

We distributed regional reporting numbers to ADR champions via a quarterly report and also material for them to use during ADR Awareness Week in November 2018

## Teaching/Meetings

Date	Venue	Audience	Approximate Numbers	Sector
May 2018 (REF)	Shrewsbury	West Midlands Physicians' Association, Shrewsbury, May 2018: 'Medicines and murder.'	80	doctors
May 2018 (REF)	Bucharest	European Association of Poisons Centres and Clinical Toxicologists 'Hypersusceptibility to drugs: why some people are poisoned.'	120	toxicologists
May 2018 (REF, KB)	Russells Hall Hospital	grand Round	30	physicians, pharmacists
June 2018 (REF)	Birmingham	Acute Medicine Conference, 'Medicines, mishaps, and manslaughter.'	40	acute medicine consultants and trainees
January 2019 (REF)	University of Birmingham	Forensic pharmacology	40	pharmacy undergraduates
June 2018 (REF)	London	London Toxicology Group, 'Deaths from Medicines.'	40	toxicologists
June 2018 (REF)	Royal College of Physicians	Innovations In Medicine 2018 – Drug errors and the law	120	physicians
September 2018 (KB, CA, TA)	Birmingham	Healthwatch West Midlands	30	patient representatives
November 2018 (REF)	ISoP	Harms from devices	300	doctors, pharmacists, regulators
November 2018 (AC, REF)	ISoP	Preventing Future Deaths From Medicines: Responses To Coroners' Concerns - poster	300	doctors, pharmacists, regulators
November 2018 (CA)	ISoP	Drug safety alert – time to action - poster	300	doctors, pharmacists, regulators
November 2018 (KB)	ISoP	Patient knowledge of adverse drug reaction reporting - poster	300	doctors, pharmacists, regulators
January 2019 (CA)	Sandwell Hospital	How to report adverse drug reactions	40	physiotherapists

January 2019 (CA)	University of Aston	Adverse drug reactions	15	pharmacist independent prescribers
January 2019 (CA)	Leicester	FACS Aware	200	patients
February 2019 (REF)	University College London	Adverse Drug reactions SpR training day	15	SpRs
March 2019 (CA)	City Hospital Birmingham	How to report adverse drug reactions	30	cardiology nurses
March 2019 (CA)	University Hospital North Midlands	How to report adverse drug reaction	20	pharmacists, pharmacy technicians

### Lectures given include

Professor Coleman gave the following invited lectures

Psychoactive and Opioid Drug Overprescribing: A Modern Epidemic. 23rd Hong Kong Medical Forum, Hong Kong, May 2018.

Gamification in Pharmacology / Therapeutics Education. Education Satellite meeting. World Congress of Basic and Clinical Pharmacology, Kyoto, Japan, July 2018.

Prescribing Challenges in Modern Practice

Fellowship of Postgraduate Medicine Centenary Conference, Royal College of Physicians, London. 7th December 2018

Electronic Prescribing: Current State and Future Interventions at the The Future of Safe Prescribing - A joint conference between the British Pharmacological Society and the Royal College of Physicians of Ireland, Royal College of Physicians of Ireland, Dublin, March 2019

Prescribing Competency: Designing Online Training Course; Medicines Regulation – a UK perspective, the secondary use of data for medicines management; and risk management (4 lectures)

“Clinical Pharmacology: Preparing for Future”. 12th Annual Conference of South Asian College of Clinical Pharmacology (SAC-ACCP) (An affiliate of American College of Clinical Pharmacology), Mumbai, India, April 2019

## 6. PUBLICATIONS AND CONFERENCES

Publications for 2018/19 include:

Aronson JK, Ferner RE. It does all depend on the dose. Understanding beneficial and adverse drug effects since 1864: Clinical and experimental attitudes to the Law of Mass Action and concentration–effect curves. In Cunningham A, Grell OP, Arrizabalaga J, Eds. It All Depends on the Dose: Poisons and Medicines in European History (The History of Medicine in Context). Routledge, London: 2018: 210–240.

Aronson JK, Goldacre B, Ferner RE. Prescribing biosimilars. *BMJ* 2018;362:k3141

Audi S, Burrage DR, Lonsdale DO, Pontefract S, Coleman JJ, Hitchings AW, Baker EH. The 'top 100' drugs and classes in England An updated 'starter formulary' for trainee prescribers.

Br J Clin Pharmacol. 2018 Jul 5. doi: 10.1111/bcp.13709

Avery AJ, Coleman JJ. Tackling potentially inappropriate prescribing. *BMJ*. 2018 Nov 14;363:k4688.

Coleman JJ. Prescribing in 2019: what are the safety concerns? *Expert Opin Drug Saf*. 2019 Feb;18(2):69-74.

Cox AR, Islam A, Neal P. Homeopathy and the professional of pharmacy: A survey of United Kingdom and New Zealand. *Research in Social and Administrative Pharmacy*. 2018; 14: e34 (Presented at the International Social Pharmacy Workshop 2018, Leuven, Belgium. 22nd to 26th July 2018) LINK

Dimmitt SB, Stampfer HG, Martin JH, Ferner RE. Efficacy and toxicity of antihypertensive pharmacotherapy relative to effective dose 50 (ED50). *Br J Clin Pharmacol*. 2019 Jun 20. doi: 10.1111/bcp.14033. [Epub ahead of print]

Dimmitt SB, Floyd CN, Ferner RE. Antithrombotic dose: some observations from published clinical trials. *Br J Clin Pharmacol*. 2019 May 3. doi: 10.1111/bcp.13968. [Epub ahead of print]

Ferner RE, Ahmad T, Babatunde Z, Cox AR. Preventing future deaths from medicines: responses to Coroners' concerns in England and Wales. *Drug Saf*. <https://doi.org/10.1007/s40264-018-0738-z>.

Ferner RE, McGettigan P. Adverse drug reactions. *BMJ*. 2018 Nov 6;363:k4051. doi: 10.1136/bmj.k4051.

Ferner R, Cox A. "Drug-induced neurological disease." In *Diagnosis and Treatment in Internal Medicine*. Oxford, UK: Oxford University Press, 2018. <http://oxfordmedicine.com/view/10.1093/med/9780199568741.001.0001/med-9780199568741-chapter-240>.

Green AR, Aronson JK, Haddad PM. Examining the 'psychopharmacology revolution' (1950–1980) through the advertising of psychoactive drugs in the *British Medical Journal*. *J. Psychopharmacol*. 2018; 32(10) <https://doi.org/10.1177/0269881118796810>

Heneghan C, Aronson JK. Sodium valproate: who knew what and when? Cumulative meta-analysis gives extra insights. *EBM Opinion and Debate* 2018; 24(4) <http://dx.doi.org/10.1136/bmjebm-2018-111068>

Krska J, Cox AR. Adverse Drug Reactions. In: Whittlesea C, Hodson K. *Clinical Pharmacy and Therapeutics*. 6th edition. Elsevier; 2018. Pages 66-80 LINK

Rudgard WE, Hirsch CA, Cox AR. Amateur Endurance Athletes' use of non-steroidal anti-inflammatory drugs: a cross sectional survey. *International Journal of Pharmacy Practice*. 2018; [Link] (<https://doi.org/10.1111/ijpp.12469>)

Langford NJ, Morley SR, Ferner RE. The relationship between antemortem and postmortem morphine concentrations. *Clin Toxicol* <https://doi.org/10.1080/15563650.2019.1591430>

O'Donovan B, Rodgers RM, Cox AR, Krska J. Use of information sources regarding medicine side effects among the general population: a cross-sectional survey *Primary Health Care Research & Development*. 2019 In Press

O'Donovan B, Rodgers RM, Cox AR, Krska J. Development and preliminary validation of an instrument to enable laypersons to assess suspected side effects from medicines. *Pharmacoepidemiol Drug Saf*. 2019; 1– 9. <https://doi.org/10.1002/pds.4841>

O'Donovan B, Rodgers RM, Cox AR, Krska J. 'You feel like you haven't got any control': A qualitative study of side effects from medicines. *Journal of Patient Safety and Risk Management*. 2019 <https://doi.org/10.1177/2516043518821499>

Pontefract SK, Hodson J, Slee A, Shah S, Girling AJ, Williams R, Sheikh A, Coleman JJ.

Impact of a commercial order entry system on prescribing errors amenable to computerised decision support in the hospital setting: a prospective pre-post study.  
BMJ Qual Saf. 2018 Mar 23. pii: bmjqs-2017-007135. doi: 10.1136/bmjqs-2017-007135.

Pontefract SK, Coleman JJ, Vallance HK, Hirsch CA, Shah S, Marriott JF, Redwood S. The impact of computerised physician order entry and clinical decision support on pharmacist-physician communication in the hospital setting: A qualitative study.  
PLoS One. 2018 Nov 16;13(11):e0207450.

Ratansi M, Cox AR, Marriott JF. An observational study to explore antimicrobial stewardship (AMS), malnutrition risk and vitamin D Levels in hospital-acquired pneumonia (HAP) patients, at a large NHS trust. (Presented at the British Society for Anti-microbial Chemotherapy Spring Conference. Defeating AMR: The trinity of prevention, preservation & promotion, London, UK. 12th to 13th March 2018).

Thangaratinam S, Marlin N, Newton S, Weckesser A, Bagary M, Greenhill L, Rikunenko R, D'Amico M, Rogozińska E, Kelso A, Hard K, Coleman J, Moss N, Roberts T, Middleton L, Dodds J, Pullen A, Eldridge S, Pirie A, Denny E, McCorry D, Khan KS. AntiEpileptic drug Monitoring in PREgnancy (EMPiRE): a double-blind randomised trial on effectiveness and acceptability of monitoring strategies. Health Technol Assess. 2018 May;22(23):1-152. doi: 10.3310/hta22230.

## **7. RESEARCH**

We supervised 4 MPharm projects during the year and two posters arising from these will be presented at the International Society for Pharmacovigilance annual meeting in Bogota in October.