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# How Ethnicity Impacts on the use of Short Acting Antipsychotic Intramuscular Injections

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# Declarations of Interest

- Registrar, College of Mental Health Pharmacy (CMHP)
- Co-Editor Psychotropic Drug Directory
- Honorarium – Rovi Biotech Limited UK, May 2022



# Background

- Inequality exists in all healthcare settings
- Potential for adverse effects of inequality in mental health settings is increased due to the use of enforced treatments
- Evidence shows there is inequality in
  - the use of the Mental Health Act for both inpatients and community patients<sup>1</sup>
  - The route of access to services with certain groups more likely to access mental health support via the police or criminal justice system than voluntarily
- There is also concern around how mental health services are perceived within different cultures and whether they are meeting the needs of diverse cultures



# Ethnicity and Medication in MHS

- Information on the use of medication in Mental Health services with regard to ethnicity is limited
- Most comes from the USA where the healthcare structure is very difficult to compare with the UK
- A few studies were done 10 years ago looking at antipsychotic use in the UK however they were mainly limited to Black patients and White patients<sup>2</sup>
- Limited studies which look at outcomes and patient experience
- Negative experiences of medication impact on ongoing care and outcomes



# What we know

- Most of the research looking at the link between antipsychotic IM injections and ethnicity has been undertaken in the USA
- In the UK, a 2021 study by SLAM looked at the use of rapid tranquilisation (RT) alongside the use of seclusion and restraint<sup>3</sup>
  - Study found no difference in the use of RT between ethnic groups
  - Looked at Datix information
  - Didn't present information on type of medication
  - Didn't include IM medication that is outside of RT

*SLAM= South London and the Maudsley*



# Aims

- To explore whether there was any difference in the use of IM injections in NELFT by patient ethnicity in terms of
  - Rates of administration,
  - Types of medicines used,
  - Use of combinations of medicines
  - Frequency of injections per patient



# Method

**Patient Identification:** Patients were Identified via Electronic Prescribing and Medication Administration system (EPMA) report  
All administrations over 6-week period Feb – Apr 21  
All IM injections (haloperidol, olanzapine, aripiprazole, zuclopenthixol acetate, lorazepam, promethazine)

**Data collection:** Data was collected from EPMA, patient notes and public health data on ethnicity  
Medication details (dose, medication, combinations)  
Anonymised patient Details (ward, gender, ethnicity, age, admission rates)

**Data Analysis:** Uploaded and Analysed using Microsoft Excel®



# Definitions

- Short acting Intramuscular (IM Injections)
- Any short acting IM injection (i.e. not a depot) used in mental health settings
  - Lorazepam, Promethazine, Haloperidol, aripiprazole, olanzapine, zuclopenthixol acetate (Acuphase®)
  - Rapid Tranquilisation
  - As part of a treatment plan
  - Information on restraint wasn't collected
  - Ethnicity as defined by the patient record system





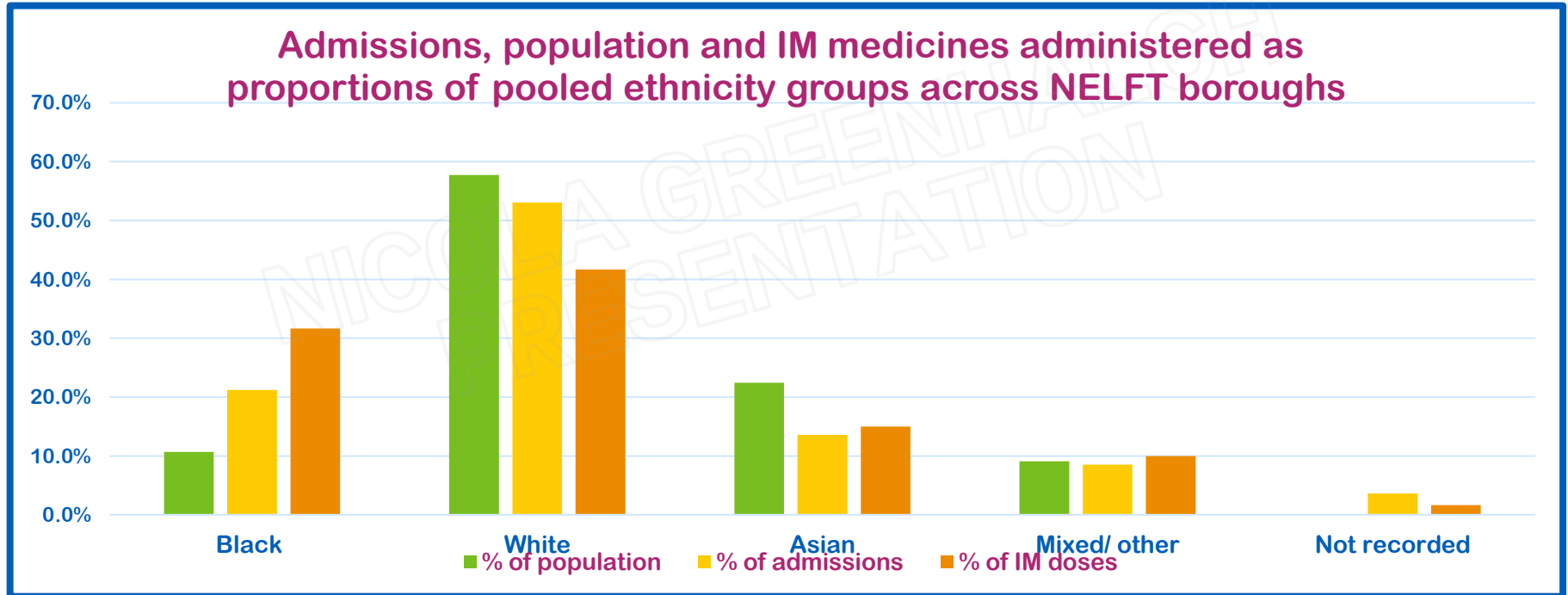
# Results

- A total of 177 administrations occurred to 60 patients over the study period.
- The admissions ward (54), male psychiatric intensive care unit (34) and one of the female acute adult wards (35), showed the highest use of IM injections

	Total administrations	Administrations of Combinations	Combinations as a percentage of total administrations
Black or Black British other	15	2	13.33%
Caribbean - Black or Black British	9	0	0.00%
African black or black British	43	4	9.30%
Mixed Black African/White	5	1	20.00%
White British	22	1	4.55%
White Other	37	3	8.11%
Bangladeshi	6	0	0.00%
Indian	3	0	0.00%
Pakistani	6	1	16.67%
North African	3	1	33.33%
Asian Other	9	3	33.33%
Any other	16	2	12.50%
Not Stated	3	0	0.00%
<b>Total</b>	<b>177</b>	<b>18</b>	<b>10.17%</b>

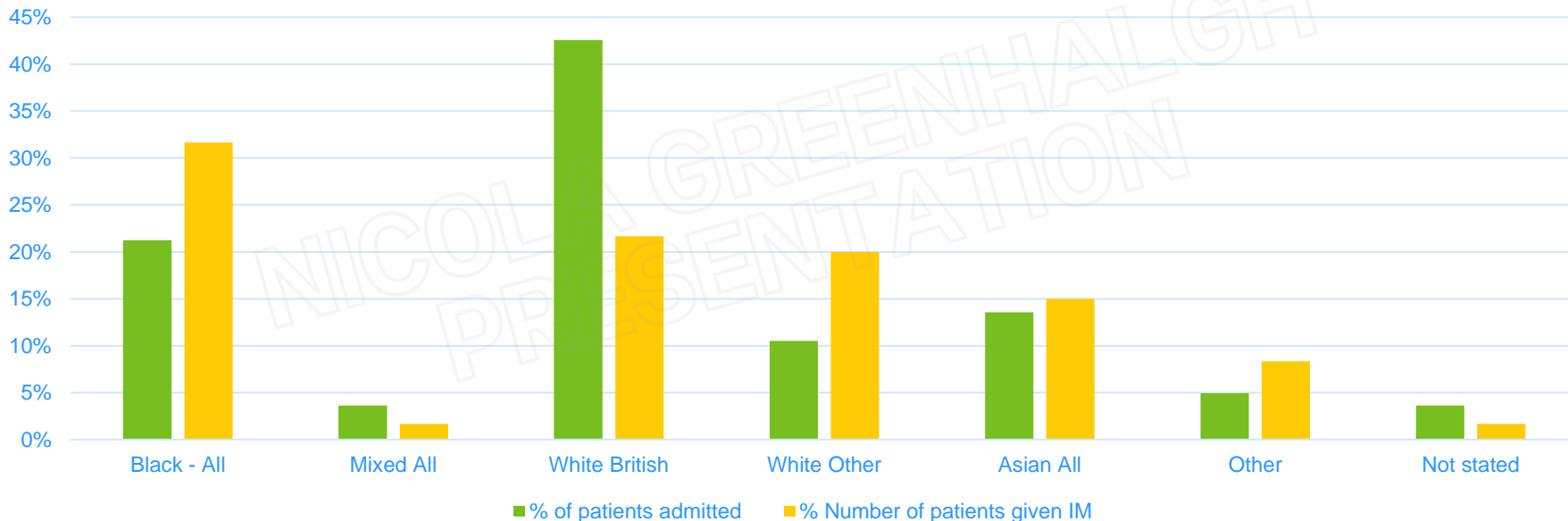


Total administrations of short acting IM injections over a 6 week period from February – April 2021. Data is broken down by ethnicity groups and compared to the ethnicity of admissions over January – May 2021 and the ethnicity of the patients across NELFT boroughs.



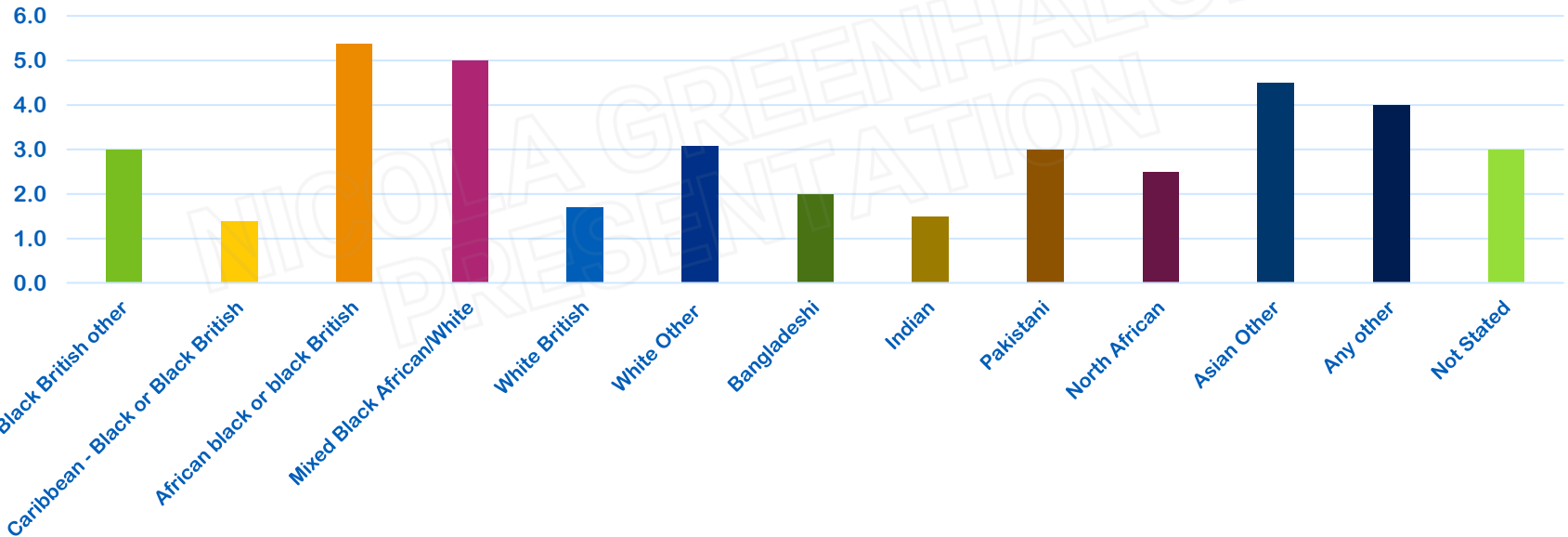
# Ethnicity of patients admitted into NEFLT from January 2021 – May 2021 against ethnicity of patients administered short acting IM injections

Ethnicity of patients admitted and those administered IM injections



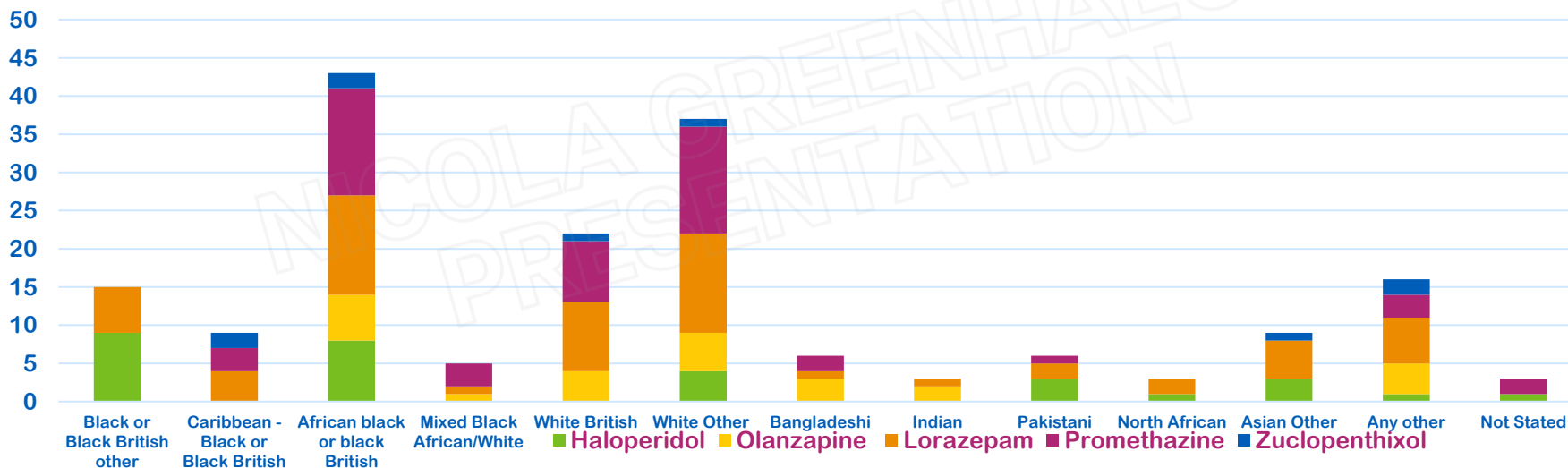
Average number of administrations of short acting IM injections over a 6 week period from February – April 2021. Data is broken down by ethnicity groups. The overall average across all groups was 3 injections per patient.

Average Number of short acting IM doses per patient



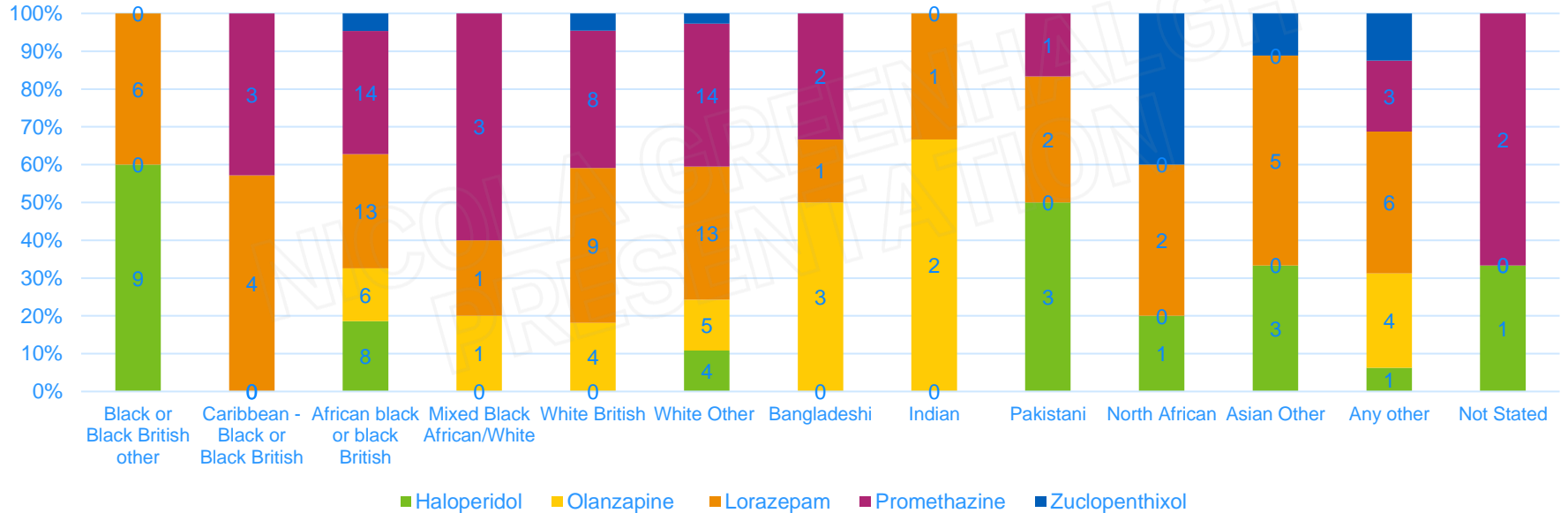
Administrations of short acting IM injections over a 6 week period from February – April 2021. Data is broken down by ethnicity groups and by the medication administered. Information is included on all short acting IM injections including haloperidol, olanzapine, zuclopenthixol, lorazepam and promethazine. There were no administrations of IM aripiprazole.

Short acting IM injections by Type and Ethnicity



# Administrations of short acting IM injections broken down by ethnicity groups as a percentage of each of the medications administered for each ethnicity.

Short Acting IM injection types as a percentage across ethnicities



# Conclusions

- Use of IM injections differs across ethnicities
  - Difference seen in
    - Proportion of patients receiving IM injections
    - Type of injections used
    - Re-injection frequency
- Differences are important as they can affect the experience of a patient, IM injections can be a traumatic event for patients and different medicines have different adverse effects and risks
- Need to understand why there are differences particularly focusing on the events pre and post injection



# Limitations

- Missed data
  - Noted during the study that reference was made to administrations on the patients clinical notes that were not recorded on the prescribing system
  - Ethnicity data was missing for some patients
  - Population data was pooled
- Data on restraint wasn't included
- Data on whether patient requested IM medication wasn't included
- Unable to account for potential confounders e.g. diagnosis





# Unconscious bias

- It is important to recognise the role that unconscious bias can play both in research and in practice
- Personal bias may impact on medication use, choice and dose
- Concern about being perceived as racist may impact both clinical practice and research activity
- Important that research into the area doesn't lead to inequality elsewhere
  - E.g. Concern caused by research leading to an increase in other restrictive practice or over medication to prevent need for rapid tranquilisation
- Need to build routine monitoring of inequalities into the monitoring of medicines use



# Next Steps

- Need to understand where the inequity lies
  - Further detailed analysis of patient/ medication factors e.g. diagnosis, adherence, regular medication
- Undertaking study to look at potential factors that may influence administration
  - Qualitative study looking at views of patients and staff
    - Two psychology post-graduate students undertaking under supervision
  - Quantitative study
    - Further data
    - Look at confounders and factors that may influence administration and particularly repeated administration e.g. medication adherence, regular treatment optimisation, time from admission, management post injection



**Thank you for  
listening**

**Any Questions?**



# References

- NHS Digital, Mental Health Act Figures 2020-21  
<https://www.gov.uk/government/statistics/mental-health-act-statistics-annual-figures-2020-21>
- Connolly et al., 2010. Antipsychotic prescribing in Black and White hospitalised patients  
<https://journals.sagepub.com/doi/pdf/10.1177/0269881109387841>
- Payne-Gill et al 2021. The relationship between ethnic background and the use of restrictive practices to manage incidents of violence or aggression in psychiatric inpatient settings. <https://onlinelibrary.wiley.com/doi/full/10.1111/inm.12873>

