**HEALTH AND SPORT COMMITTEE**

**THE SUPPLY AND DEMAND FOR MEDICINES**

**SUBMISSION FROM The Royal College of Psychiatrists**

1. **Does the system ensure patients receive the most clinically and cost-effective treatments and, if not, how can this be improved?**

1. There are relatively few systems in place for tracking interventions and outcomes for patients treated within MH services. Apart from ECT (via the Scottish ECT Audit Network, SEAN) there is no widespread systematic recording of outcomes (to the best of our knowledge). This makes it difficult to determine the effectiveness (and therefore the cost-effectiveness) of the majority of treatments.
2. Since treatments provided are not recorded (in a reliable and/or auditable way), costs cannot be reliably determined. Prescribing trends also do not include indicators on why medications are prescribed, thus meaning high prescribing for classes of medication – for example antidepressants which are widely prescribed for the treatment of pain, bladder instability and insomnia– do not reflect rates of presentation of the headline indication leading to widespread misinterpretation of data.
3. There is no systematic recording of data that would enable the calculation of ‘utility’, which means that cost-utility cannot be determined either.
4. Some services and NHS Boards record more information (for example, entry and exit rating scales for severity and functioning in some psychology departments) but we don’t believe this is widespread.
5. At present the system makes it less likely that patients can access the most clinically and cost-effective treatments. In recent years we have observed in general adult psychiatry increasing difficulty with a reliable supply of cheaper and generic medications resulting in switches which are not necessarily the best for patients, as they may increase likelihood of relapse and use up clinical time doing the switches.

1. **Does the NHS in Scotland achieve the most value from the money spent on medicines and, if not, how can this be improved?**

1. Currently mental health services are financially penalised in the use of Clozapine as it is not defined as a community prescription. As such, hospitals pay for the drug and the VAT on top of this cost. Making Clozapine a community prescription would be beneficial for NHS budgets across the country and make the drug more accessible for patients who require it for treatment.
2. In the absence of the information described in the response to question 1, the calculation of ‘value’ is not possible. We have the numerator (the cost) well-defined, but the denominator (utility gain/ no. of people responding/ *etc*.) is not available.
3. Until we can match medicines to a particular patient outcome, it is difficult to determine if the money is used well.
4. At present, value could be improved by having a tighter formulary led by both medical and pharmacy staff but this relies on a reliable supply of medications. Intermittent supplies increase inefficiencies as clinical staff are pulled into repeated changes of medications

1. **In what ways can the system be made more efficient?**

1. Better (systematised) data collection would be a good first step. However, this has to be at zero (or minimal) cost to clinicians since any additional data burden will not increase data collection. Data collection has to be quick, easy, and result in outcome data being reported back to the clinician (and teams) who collected it. Too often, information goes into a data ‘black hole’ and any motivation/ reward for data collection is quickly lost. The data are often experienced as belonging to the organisation rather than the clinician.
2. There is compelling evidence that for many disorders (*e.g.* depression, schizophrenia), ‘sequenced care’ interventions improve outcomes and reduce costs of treatment. These approaches are sometimes referred to as ‘Standardised Stepwise Treatment Regimens’ (SSTRs) (*a.k.a.* sequenced care) and involve treating patients according to an algorithmic approach whereby patients step through a pre-determined sequence of treatments that are intended to optimise outcome whilst reducing variation. These approaches have been used around the world for at least 20 years but have never embedded themselves into ‘standard’ care for a number of reasons:
   1. Such approaches (and their acceptability) may have to be learned early on in training. For example, the Affective Disorders Clinic (ADC) in Dundee utilised senior trainees within what was essentially a sequenced stepwise treatment approach. Response and remission rates (for those that remained in treatment) almost certainly exceeded those in routine clinical care and interventions were typically cheap antidepressants (*e.g.* Paroxetine, Imipramine, and Phenelzine). Remission rates of 37% were recorded in a patient population typical for depressed patients referred to secondary care.
   2. They typically have to be embedded within systems whereby outcomes are both collected and available to the clinician (so that they can influence treatment decisions). Such systems are infrequently available in routine NHS-based care.
   3. Clinicians have to be able to review patients on a regular and frequent basis so that doses can be optimised, adverse effects managed, and outcomes measured. There is not likely to be a service in Scotland that could, for example, enable prescribers to review patients fortnightly. However, there are ways to overcome this by using non-medical prescribers who receive appropriate supervision from experienced doctors. Again, systems are slow to adopt alternative models to ones that involve psychiatrists seeing lots of patients and being responsible for most of the prescribing.
   4. Our current service delivery is heavily based on locums, and there is unlikely to be routine collective oversight over clinician and team prescribing. It is difficult to deliver such care in these circumstances, even when such systems (on paper) should be a solution to high-turnover systems of care since they embed care (and information) in the model/ system rather than the prescriber.
3. The evidence that SSTRs can improve outcomes for depression is fairly consistent. A summary of studies is attached. The general findings are that SSTRs achieve a higher response/ remission rate than standard care (treatment as usual, TAU) and that SSTRs achieve remission for patients much quicker than TAU.
4. The evidence base for schizophrenia is somewhat smaller and largely comes from TMAP (Texas Medication Algorithm Project). ALGO (algorithmic care) had greater improvement in symptoms in the first 3 months, but at 12 months TAU had closed the gap. ALGO improved cognitive function a little more than TAU (Miller et al, 2004).
5. There is some evidence (Guo et al, 2015) that the use of regular measurements with standard treatments can improve outcomes in depression. In this study, Guo et al reported that response rates were greater in the measurement-based group (86.9% vs 62.7%); as were remission rates (73.8% vs 28.8%). Further, time to remission was shorter for measurement-based care (10.2 weeks vs 19.2 weeks). Using information to inform decisions about treatment seems to improve outcomes.
6. A recent review of algorithm-based treatment strategies for depression (Bauer et al, 2019) concluded that systematic treatment with key decision points at the end of each treatment step (along with regular measurement of treatment response) can increase the likelihood of remission and “*optimise prescription behaviours for antidepressants.*” In addition, costs of treatment are reduced, and patients achieve remission or response quicker. It is likely that the actual steps themselves are less important than the mechanism of treatment: more robust trials, of adequate duration, with lesser polypharmacy, and better management of adverse effects.
7. Stepwise approaches to treatment have been standard care for cancer, for example, and step wise management is also present in psychiatry to an extent with tiers of response to certain common presentations and the combination of psychological approaches and social prescribing.
8. SSTRs do not provide a direct challenge to ‘personalised care’. Care is still personalised; it’s just that the care approach delivers treatments along a pre-determined algorithm. These approaches exist in dermatology, general medicine, neurology, and most other medical specialties.
9. Reliable supply of generic and cheaper medications would help, either by legislation or consideration of setting up a national not for profit organisation to supply these generic cheaper medications.
10. SIGN guidance would be helpful to guide clinicians in how to be efficient with the supply and demand of medication. The use of recent NICE guidance on young people with depression would be an example of useful tiered guidance for clinicians.
11. We welcome the use of graduated management programmes and their work in this area. However, the use of such programmes much include not only physical and standard prescriptions but also psychological and social prescribing too. An example of such would be guidance on the mental health of those with diabetes.

1. **How can the medicines budget be controlled while maintaining clinical and cost effectiveness?**

1. As outline in our response to the earlier questions, shorter durations of treatment to remission, and more efficient prescribing would be predicted to reduce overall treatment costs. Similarly, the findings that SSTRs in inpatient units can reduce admission duration would suggest that savings can be found from reducing length-of-stay.
2. Across the whole system there has to be more effective medical oversight over deviations from ‘standard care’ and better reporting of outcomes from patients where care deviates from predicted (or ‘standard’). Deviation is inevitable, but one of the things that is not currently done well is understanding (and recording) the characteristics of those for whom standard care does not suffice. Neither do we record the outcomes of those who do not respond.
3. By doing this, we may stand a better chance of knowing which treatments might suit particular patients better. For example, there would be a natural ‘case registry’ of patients on lithium, or patients receiving an MAOI, and we could use this to understand what steps should be taken next.
4. We would support the implementation of a single national NHS Scotland medication approval board that would oversee the approval of new medications and devises and create a national recommended formulary. This would replace the current arrangements of each health board having approving responsibilities. Costs would be reduced and variation reduced. This would help predict the demand on medicines nationally, assist national contract negotiations with suppliers and would minimise duplication of effort.

**References**

**Bauer, M., Rush, A. J., Ricken, R.*, et al* (2019)** Algorithms For Treatment of Major Depressive Disorder: Efficacy and Cost-Effectiveness. *Pharmacopsychiatry*, **52**, 117-125. [http://doi.org/10.1055/a-0643-4830](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fdoi.org%2F10.1055%2Fa-0643-4830&data=02%7C01%7CAndrew.Fraser%40rcpsych.ac.uk%7C7265c81cd0de4f75572608d7563c4d67%7C75aac48a29ab4230adac69d3e7ed3e77%7C1%7C0%7C637072689315861572&sdata=P%2FQPX8gljjW11xoFs%2BV28Y7E07AMMwKbn%2B%2FQzPBzcvQ%3D&reserved=0)

**Bauer, M., Pfennig, A., Linden, M.*, et al* (2009)** Efficacy of an Algorithm-Guided Treatment Compared With Treatment as Usual: A Randomized, Controlled Study of Inpatients With Depression. *Journal of Clinical Psychopharmacology*, **29**, 327-333. [http://dx.doi.org/10.1097/JCP.0b013e3181ac4839](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fdx.doi.org%2F10.1097%2FJCP.0b013e3181ac4839&data=02%7C01%7CAndrew.Fraser%40rcpsych.ac.uk%7C7265c81cd0de4f75572608d7563c4d67%7C75aac48a29ab4230adac69d3e7ed3e77%7C1%7C0%7C637072689315871565&sdata=3u%2FRb2ySbcraMUUtH7CM5go0m%2BRnkjZNuBpzj%2BYCug0%3D&reserved=0)

**Guo, T., Xiang, Y. T., Xiao, L.*, et al* (2015)** Measurement-Based Care Versus Standard Care for Major Depression: A Randomized Controlled Trial With Blind Raters. *American Journal of Psychiatry*, **172**, 1004-1013. [http://doi.org/10.1176/appi.ajp.2015.14050652](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fdoi.org%2F10.1176%2Fappi.ajp.2015.14050652&data=02%7C01%7CAndrew.Fraser%40rcpsych.ac.uk%7C7265c81cd0de4f75572608d7563c4d67%7C75aac48a29ab4230adac69d3e7ed3e77%7C1%7C0%7C637072689315871565&sdata=4LR%2FL60xcY3M1GO4R6anqU%2Fo2Vx%2BAv5SNlHvmwW%2Fpjk%3D&reserved=0)

**Miller, A. L., Crismon, M. L., Rush, A. J.*, et al* (2004)** The Texas Medication Algorithm Project: Clinical Results for Schizophrenia. *Schizophrenia Bulletin*, **30**, 627-647. [http://doi.org/10.1093/oxfordjournals.schbul.a007111](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fdoi.org%2F10.1093%2Foxfordjournals.schbul.a007111&data=02%7C01%7CAndrew.Fraser%40rcpsych.ac.uk%7C7265c81cd0de4f75572608d7563c4d67%7C75aac48a29ab4230adac69d3e7ed3e77%7C1%7C0%7C637072689315881561&sdata=%2Fw2pLwiETJBhnR%2FJniZqSDu0kAOYpjTbZ9y5bjQfB4c%3D&reserved=0)

**Ricken, R., Wiethoff, K., Reinhold, T.*, et al* (2011)** Algorithm-guided treatment of depression reduces treatment costs - Results from the randomized controlled German Algorithm Project (GAPII). *Journal of Affective Disorders*, **134**, 249-256. [http://dx.doi.org/10.1016/j.jad.2011.05.053](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fdx.doi.org%2F10.1016%2Fj.jad.2011.05.053&data=02%7C01%7CAndrew.Fraser%40rcpsych.ac.uk%7C7265c81cd0de4f75572608d7563c4d67%7C75aac48a29ab4230adac69d3e7ed3e77%7C1%7C0%7C637072689315881561&sdata=mlQ3bh9WwBkU19U6nVnx%2BUwhZKuVuGgI3NvLMe1Dfn4%3D&reserved=0)

**Trivedi, M. H., Rush, A. J., Crismon, M. L.*, et al* (2004)** Clinical results for patients with major depressive disorder in the Texas Medication Algorithm Project. *Archives of General Psychiatry*, **61**, 669-680. [http://dx.doi.org/10.1001/archpsyc.61.7.669](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fdx.doi.org%2F10.1001%2Farchpsyc.61.7.669&data=02%7C01%7CAndrew.Fraser%40rcpsych.ac.uk%7C7265c81cd0de4f75572608d7563c4d67%7C75aac48a29ab4230adac69d3e7ed3e77%7C1%7C0%7C637072689315891553&sdata=qLfbHiiN2iNc9YgMCBS1h7xDXgd4gnifehE11b%2F84hk%3D&reserved=0)

**Yoshino, A., Sawamura, T., Kobayashi, N.*, et al* (2009)** Algorithm-guided treatment versus treatment as usual for major depression. *Psychiatry and Clinical Neurosciences*, **63**, 652-657. [http://dx.doi.org/10.1111/j.1440-1819.2009.02009.x](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fdx.doi.org%2F10.1111%2Fj.1440-1819.2009.02009.x&data=02%7C01%7CAndrew.Fraser%40rcpsych.ac.uk%7C7265c81cd0de4f75572608d7563c4d67%7C75aac48a29ab4230adac69d3e7ed3e77%7C1%7C0%7C637072689315891553&sdata=jKByrUaZhBiSITwoggm7677LC0507bL0Gr9ksOBjGRg%3D&reserved=0)