



FROM COMPLIANCE/ADHERENCE
TO CONCORDANCE/ MEDICINE
OPTIMISATION

MEDICAL UPDATE

GROUP MEETING

S.VAWDA

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FROM COMPLIANCE/ADHERENCE TO CORCORDANCE/MEDICINE OPTIMISATION


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DEFINITION: COMPLIANCE/ADHERENCE

- ❑ COMPLIANCE/ADHERENCE IS A MEASURE OF HOW CLOSELY A PATIENT FOLLOWS THE TREATMENT PRESCRIBED BY A HEALTH PROFESSIONAL.**
- ❑ PATIENT NON-ADHERENCE IS A COMPLEX ISSUE WITH A RANGE OF CAUSES AND THERE IS NO “MAGIC BULLET” TO ADDRESS IT.**
- ❑ PATIENT NON-ADHERENCE CAN BE INTENTIONAL OR NON-INTENTIONAL OR A MIXTURE OF BOTH.**

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- ❑ **PATIENT ADHERENCE WITH PRESCRIBED/NON-PRESCRIBED MEDICATION IS DEFINED AS ADHERENCE TO THE DIRECTIONS FOR USE.**
 - ❑ **THE ADHERENT PATIENT FOLLOWS THE DIRECTIONS FOR TAKING THE MEDICATION PROPERLY AND ADHERES TO ANY SPECIAL INSTRUCTIONS PROVIDED BY THE PRESCRIBER AND/OR PHARMACIST**
 - ❑ **ADHERENCE INCLUDES TAKING THE MEDICATION:**
 - **AT THE REQUIRED STRENGTH**
 - **IN THE PROPER DOSAGE FORM**
 - **AT THE APPROPRIATE TIME OF DAY/NIGHT**
 - **AT THE PROPER INTERVAL**
 - **AT THE REQUIRED DURATION OF TREATMENT**
 - **WITH PROPER REGARDS TO FOOD AND DRINKS AND CONSIDERATION OF OTHER CONCOMITTANT MEDICATIONS**

NON-ADHERENCE

- ❑ **NON-ADHERENCE WITH PRESCRIBED MEDICATION IS THOUGHT TO BE A MAJOR CAUSE OF TREATMENT FAILURE, COMPLICATIONS, HOSPITAL ADMISSIONS AND MORBIDITY/MORTALITY.**
- ❑ **ACCORDING TO MAJOR STUDIES:**
 - **>33% OF PATIENTS ARE ADHERENT**
 - **>33% OF PATIENTS ARE NON-ADHERENT BECAUSE OF MISUNDERSTANDING/ FORGETFULNESS/ PHYSICAL DIFFICULTIES (UNINTENTIONAL NON-ADHERENCE)**
 - **>33% PATIENTS ARE NON-ADHERENT AS AN INFORMED, CONSCIOUS CHOICE TO BE NON-ADHERENT(INTENTIONAL NON-ADHERENCE)**




NON-ADHERENCE

IN THE UK NICE ESTIMATED THAT ANNUALLY £4 billions OF MEDICINES ARE NOT USED CORRECTLY WHICH COULD RESULT IN £36 millions - £194 millions WORTH OF PREVENTABLE HOSPITAL ADMISSIONS.

NON-ADHERENCE (SOME STATISTICS)

DISORDERS	% NON-ADHERENCE
ANXIETY DISORDERS	50%
ARTHRITIS	20%
DIABETES MELLITUS	45%
CORONARY ARTERY DISEASE	40%
HYPERTENSION	40%
MIGRANE/HEADACHE	10%



ADHERENCE IS A MAJOR ISSUE FOR LONG TERM MEDICATION IN CHRONIC DISEASES. BETWEEN 1/3 TO ½ OF MEDICINES PRESCRIBED ARE NOT TAKEN AS INTENDED.

THIS AFFECTS:

- 1) PATIENTS' HEALTH LEADING TO DECREASED QUALITY OF LIFE, COMPLICATIONS, PREVENTABLE HOSPITALS ADMISSIONS, MORTALITY/MORBIDITY**

- 2) SOCIETY AT LARGE**
 - **INCREASED HEALTHCARE COST/GOVERNMENT SPENDING**

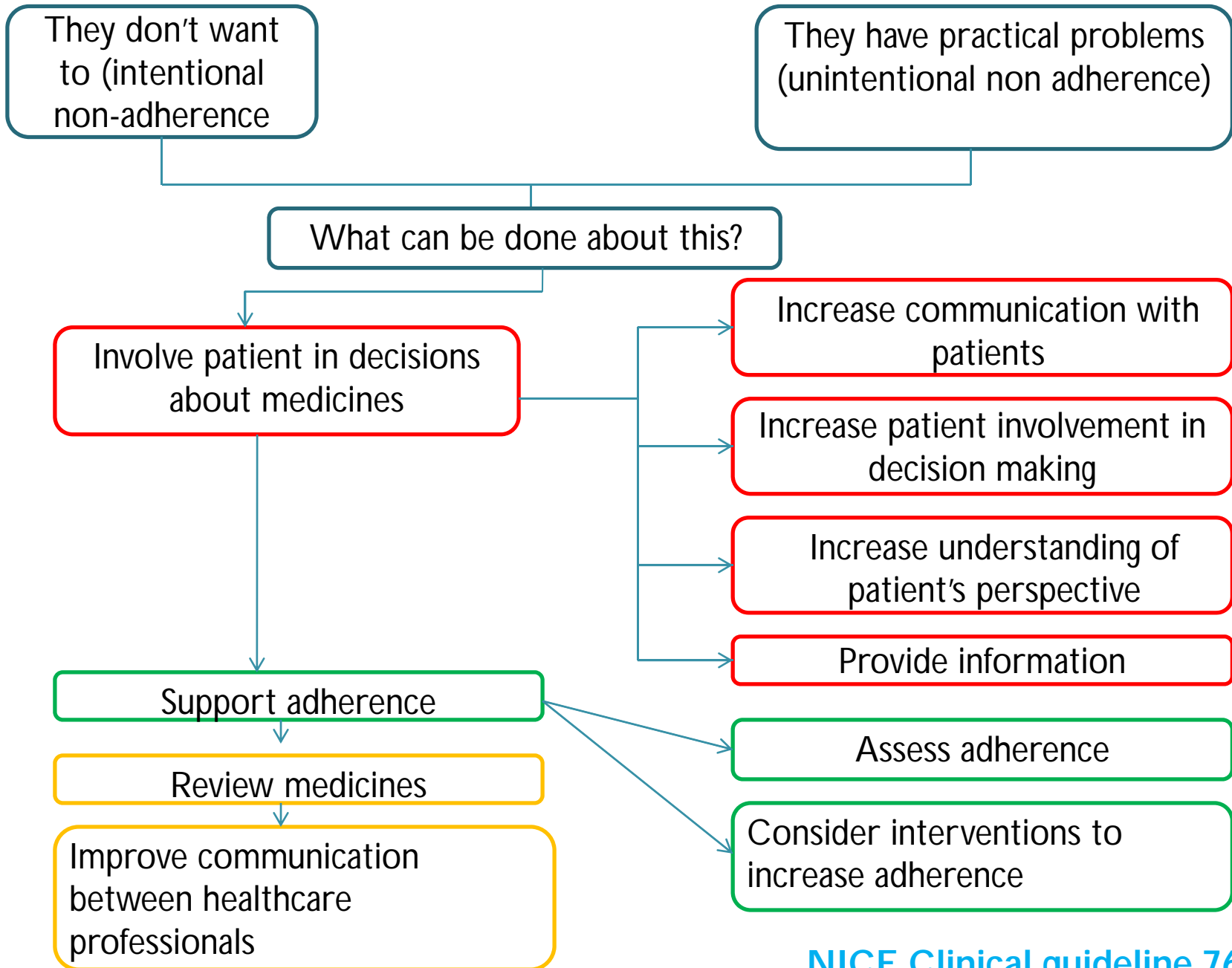
 - **UNTREATED DISEASES EXPOSE THE SOCIETY TO POTENTIAL PROBLEMS (INFECTIOUS DISEASES LIKE TB/HIV, PSYCHIATRIC DISEASES)**



NON-ADHERENCE AND ANTIBIOTICS

- **NON-ADHERENCE IS A MAJOR ISSUE IN ANTIBIOTIC TREATMENT WITH 50% OF PATIENTS NOT COMPLETING THE COURSE OF TREATMENT**
- **NON ADHERENCE LEADS TO RECURRENCE OF INFECTION AND EMERGENCE OF RESISTANT STRAINS**

Why don't some patients use their medicines as prescribed?





RISK FACTORS ASSOCIATED WITH POOR ADHERENCE

1. MEDICINE-RELATED FACTORS

- **LONG TERM/CHRONIC THERAPY**
- **COMPLEX REGIMENS**
- **UNWANTED SIDE EFFECTS**
- **MEDICINES USED FOR PREVENTION OR SYMPTOMSLESS ILLNESSES/CONDITIONS (e.g. HIGH CHOLESTEROL, HYPERTENSION)**



RISK FACTORS ASSOCIATED WITH POOR ADHERENCE

2. EMOTIONAL/PHYSICAL FACTORS

- **CONCERNS ABOUT THE VALUE/APPROPRIATENESS OF TAKING THE MEDICINE**
- **DENIAL OF ILLNESS, ESPECIALLY AMONG YOUNGER PEOPLE**
- **CONFUSION OR PHYSICAL DIFFICULTIES ASSOCIATED WITH MEDICINE TAKING (MOSTLY AFFECTS OLDER PEOPLE)**



RISK FACTORS ASSOCIATED WITH POOR ADHERENCE

3. CLINICAL/SOCIAL FACTORS

- **CO-MORBIDITIES, ESPECIALLY MENTAL HEALTH PROBLEMS, ILLICIT DRUG USE**
- **LACK OF SOCIAL STABILITY ,HOMELESSNESS/LACK OF FAMILY/SOCIAL SUPPORT**
- **BUSY OR CHAOTIC LIFESTYLE**
- **NEGATIVE RELATIONSHIP WITH HEALTHCARE PROVIDERS**



CAUSES OF POOR ADHERENCE

1. UNINTENTIONAL

- **FORGETFULNESS (OMITTING A DOSE, NOT TAKING MEDICINE AT ALL, TAKE EXTRA DOSES, TAKE THE WRONG MEDICATION, TAKE AT WRONG TIME, ETC)**
- **DIFFICULTY IN TAKING DOSES (INHALER, CHILD RESISTANT CONTAINERS)**
- **INFLUENCE OF COMORBIDITIES AND PHYSICAL AND MENTAL DISABILITIES ON BEHAVIOUR**



CAUSES OF POOR ADHERENCE

2. INTENTIONAL

- **PURPOSE OF TREATMENT NOT CLEAR**
- **PERCEIVED LACK OF EFFECT**
- **REAL OR PERCEIVED SIDE EFFECTS/DEPENDENCE**
- **INSTRUCTION FOR ADMINISTERING NOT CLEAR/POOR LABELLING**
- **COMPLICATED REGIMENT (MULTIPLE DRUGS/MULTIPLE DOSES)**
- **RISKS PERCEIVED AS OUTWEIGHING BENEFITS OF TREATMENT.**



CAUSES OF POOR ADHERENCE

- **SYMPTOMLESS DISEASE SO WHY TAKE MEDICINES?**
- **UNATTRACTIVE FORMULATION (e.g. UNPLEASANT TASTE)**
- **“FEAR” ABOUT TAKING A DRUG**
- **TRAVEL TO PLACE OF TREATMENT (INJECTABLES)**
- **UNWILLINGNESS TO ACCEPT THE LABEL OF AN ILLNESS/PERCEIVED STIGMA ATTACHED TO AN ILLNESS**
- **INCONVENIENCE TO TAKE DRUGS AT A PARTICULAR SET TIME AND FREQUENCY**



CAUSES OF POOR ADHERENCE

- **LACK OF CONFIDENCE IN DOCTOR'S DECISION**
- **POOR COUNSELLING/PATIENT EDUCATION BY DOCTORS/PHARMACISTS**
- **SOURCE OF MEDICATION**
- **SWITCHING OF BRANDS (GENERIC SUBSTITUTION/PARALELL IMPORTATION)**
- **HIGH COST**
- **INFLUENCE BY OTHER SOURCES OF INFORMATION SUCH AS MEDIA/INTERNET AND THE EXPERIENCES OF FRIENDS/FAMILY**

IDENTIFYING POSSIBLE NON-ADHERENCE

- 1) HEALTHCARE PROVIDER'S OR CARER'S IMPRESSION/CLINICAL JUDGEMENT IN TERMS OF WORSENING CONDITIONS
- 2) QUESTIONING/COUNSELLING – BUT THE CRITICAL POINT IS TO ASK QUESTION IN A WAY THAT DOES NOT APORTION BLAME AND NOT TO BE PATERNALISTIC
- 3) SELF-REPORT (e.g. verbally, diary, survey)
- 4) CALCULATIONS (e.g. repeat prescriptions, pill count, compliance aids, patient medication records)
- 5) MONITORING (BLOOD LEVELS/ELECTRONIC)

A COUPLE OF INDICATORS OF POOR ADHERENCE

- **CALCULATE HOW MUCH MEDICINE A PATIENT SHOULD HAVE TAKEN AND COMPARING IT WITH REPEAT PRESCRIPTIONS (PHARMACY SOFTWARE SYSTEMS) -> COMPLIANCE RATIOS**
- **PATIENT RETURNED MEDICINES**
- **PATIENT HAS A NEGATIVE REACTION TO A NEW PRESCRIPTION**
- **PATIENTS BRINGING A PRESCRIPTION TO THE PHARMACY AND SAYING “I DON’T WANT THAT” FOR A PARTICULAR DRUG.**



VALIDATED TOOLS TO MEASURE ADHERENCE

ONCE PATIENTS AT RISK OF NON-ADHERENCE HAVE BEEN IDENTIFIED, IT IS HELPFUL TO HAVE A STRUCTURED WAY TO DOCUMENTING AND EXPLORING THEIR BELIEFS:

- HEALTHCARE PROFESSIONALS RELY ON VALIDATED TOOLS**



VALIDATED TOOLS

- **BMQ: “BELIEFS ABOUT MEDICINES QUESTIONNAIRE”**
 - ADDRESSES BELIEFS ABOUT NECESSITY OF TAKING PRESCRIPTION MEDICINES
 - ADDRESSES CONCERNS ABOUT TAKING THEM
- **MARS: “MEDICATION ADHERENCE RATING SCALE”**
 - A 10-ITEM SELF REPORT MEASURE TO EXPLORE ADHERENCE TO MEDICATION FOR PSYCHOSIS
- **BEMIM: “ BRIEF EVALUTION OF MEDICATION INFLUENCES AND BELIEFS”**
 - 8 ITEM SELF REPORT SCALE ON PATIENTS ON ANTIPSYCHOTIC MEDICINES

THESE ABOVE TOOLS CAN BE HELPFUL ALSO IN DEVISING PRACTICAL STRATEGIES TO OVERCOME NON ADHERENCE



IMPROVING ADHERENCE

THE BEST WAY TO IMPROVE ADHERENCE IS TO INVOLVE PATIENTS IN DECISIONS ABOUT PRESCRIBED MEDICINES AND TO SUPPORT ADHERENCE – PATIENT-CENTERED CARE

- **GOOD COMMUNICATION, SUPPORTED BY EVIDENCE BASED INFORMATION, IS ESSENTIAL**
- **TREATMENT AND CARE SHOULD TAKE INTO ACCOUNT PATIENTS' INDIVIDUAL NEEDS AND PREFERENCES**
- **IF CONCERNED ABOUT PATIENT CAPACITY AND IF HE AGREES, FAMILIES AND CARERS SHOULD HAVE THE OPPORTUNITY TO BE INVOLVED IN DECISIONS ABOUT TREATMENT AND CARE.**



WAYS OF IMPROVING ADHERENCE

- **BETTER KNOWLEDGE/EDUCATION OF THEIR DISEASE/MEDICATION**
(DISEASE, DRUG, TREATMENT BENEFITS, SIDE EFFECTS AND WHAT TO DO IF EXPERIENCED, HOW TO USE, WHAT TO DO IF A DOSE IS MISSED, DURATION OF TREATMENT,ETC).INFO SHOULD BE BOTH ORAL/WRITTEN .
- **QUALITY OF DOCTOR/PATIENT COMMUNICATION**
 - **EMPATHY**
 - **INFORMATION EASY TO UNDERSTAND AND FREE FROM JARGON**
 - **PICTORIAL REPRESENTATIONS, SYMBOLS, LARGE PRINTS**



WAYS OF IMPROVING ADHERENCE

- **HEALTHCARE PROVIDER SHOULD ADAPT THEIR CONSULTATION STYLE SO THAT PATIENTS ARE GIVEN THE OPPORTUNITY TO BE INVOLVED IN THE DECISION MAKING PROCESS**
- **SIMPLIFY DRUG REGIMENS**
 - REDUCE POLYPHARMACY AS FAR AS POSSIBLE**
 - COMBINATION PRODUCTS**
 - PRODUCTS WITH ONCE DAILY DOSAGE**
 - SHORTER DURATION OF TREATMENT**
 - SR/MR FORMULATIONS**
- **PROVIDING GUIDANCE ON DEVICE USE (e.g. INHALERS)**



WAYS OF IMPROVING ADHERENCE

- **SELECTING TREATMENT WITH LOWER LEVELS OF SIDE EFFECTS OR CONCERNS FOR LONG TERM USE**
- **ADDRESS PROBLEMS THAT COULD BE LINKED WITH PHYSICAL DIFFICULTIES**
 - **CHILD RESISTANT CONTAINERS**
 - **INHALER USE (COUNSELLING, SPACERS)**
 - **BLISTER PACKS**
 - **SMALL TABLETS DIFFICULT TO HANDLE**
 - **SWALLOWING PROBLEMS (LIQUID FORMULATION)**



WAYS OF IMPROVING ADHERENCE

- **REASONABLE COST ACCORDING TO THE PATIENT'S FINANCIAL SITUATION, ESPECIALLY FOR CHRONIC TREATMENT**
- **COMPLIANCE AIDS (CALENDAR DISPENSING, COMPLIANCE BOXES, MONITORED DOSAGE SYSTEMS)**
- **TAILORING (MATCH DOSING WITH SPECIFIC TASKS)**
- **WITH PATIENT'S PERMISSION, TALKING TO PEOPLE WHO ASSIST WITH THEIR MEDECINES TO ADDRESS ISSUES OF FORGETFULNESS/ DIFFICULTIES TO OPEN CONTAINERS**
- **SMS, REMINDERS, RECORD KEEPING – REDUCE FORGETFULNESS**

WAYS OF IMPROVING ADHERENCE

- **AVOID SWITCHING BRANDS AS PATIENTS GET ACCUSTOMED TO COLOUR/SHAPE**
- **CLEAR LABELLING OF DRUGS BY PHARMACIES**
- **CLEAR ORAL /WRITTEN INSTRUCTIONS BY PHARMACIST UPON DISPENSING OF DRUGS/GOOD PHARMACY ENVIRONMENT**
- **GOVERNMENT/NGOs SHOULD CONDUCT PUBLIC INFORMATION CAMPAIGNS ON BENEFITS OF ADHERENCE**
- **IMPROVING COMMUNICATION BETWEEN HEALTHCARE PROFESSIONALS**
 - **DISCHARGE FROM HOSPITAL TO COMMUNITY SETTING**
 - **SPECIALIST-GP INTERACTIONS**
 - **PHARMACIST-DOCTOR INTERACTIONS**



WAYS OF IMPROVING ADHERENCE

- **MURs (MEDICINES USE REVIEWS)**
- **NMS (NEW MEDICINE SERVICE)**

Interventions that improve adherence

Intervention	Disease	Effect on adherence (compared with control/comparison group)	Effect on clinical outcomes (compared with control/comparison group)
Information giving			
Patient-centred verbal instructions and written information about medicines	Heart failure	After the intervention period, 10.9% more doses taken; 5.9% more doses taken on time; 4.2% more refills. However, this effect faded over time. ²	19.4% fewer exacerbations of heart failure. ²
Behavioural interventions			
Motivational counselling	Heart failure	A day without the patient using medicines was three times less likely to occur. ³	No significant changes in percentage of patients re-admitted or death. ³
	Dyslipidaemia	Patients took 24% more of their lovastatin and 23% more of their colestipol after two years. ¹	After two years, total cholesterol was 6.8% lower, LDL 9.4% lower and triglycerides 6.3% lower, with no significant change in HDL level. ¹
	Hypertension	Percentage of adherent patients was 6% higher. ⁴ There were 12.8% more doses taken. ²	DBP was 4.4 mmHg lower. No significant change in SBP. ⁴ No significant changes in SBP and DBP. ²
Calendar blister packages	Hypertension	Percentage of patients that had their prescription refilled on time was 14.3% higher. The MPR ⁴ was 0.06 points higher. ⁴	No significant changes in SBP and DBP. ⁴
The transtheoretical model (TTM)-based expert system	Hypertension	Percentage of patients in the action or maintenance stage of change was 9.9% higher and the questionnaire score indicated better adherence. ⁷	No clinical outcomes measured. ⁷
Telephone calls and mailings to encourage patients and remind them of their next visit	Hypertension	Percentage of adherent patients was 30% higher in the group that received telephone calls, and 22.1% higher in the group that received mailings. ⁸	In the telephone group, the SBP was 9.5 mmHg lower and DBP 7 mmHg lower. No significant changes in SBP and DBP in the mail group. ⁸

Interventions that improve adherence *(continued)*

Intervention	Disease	Effect on adherence (compared with control/comparison group)	Effect on clinical outcomes (compared with control/comparison group)
Combined interventions			
Reinforcing adherence plus education	Heart failure	There were 10.2% fewer patients who stopped taking medicines (improved persistence). ⁹	Heart failure hospital admission was 5.5% lower, cardiovascular hospital admission was 6% lower and all cause hospital admission was 4.8% lower, with no significant change in all-cause mortality. ⁹
Refill reminders and education	Hypertension	The MPR* was 0.40 points higher. ¹⁰	No clinical outcomes measured. ¹⁰
Adherence packages and education	Hypertension and dyslipidaemia	Percentage of patients that took \geq 80% of their medicines improved from 5 to 98.7%. ¹¹	SBP was 5.9 mmHg lower, with no significant changes in DBP and LDL. ¹¹
Social support and education	Ischaemic heart disease	Significantly better adherence rates. ¹²	No significant change in total events. ¹²
	Hypertension	A questionnaire score indicated better adherence. ¹³	After one year, SBP was 18.5 mmHg lower, DBP 6.9 mmHg lower, BMI 0.9 lower and HDL 5.6 mg/dL higher. No significant changes in LDL, total cholesterol or triglyceride levels. ¹³
Dose-intake reminders, education and social support	Hypertension	After the intervention period, 8% more patients were adherent. However, this effect faded over time. ¹⁴	No significant change in blood pressure reduction or normalisation. ¹⁴

Abbreviations: BMI: body mass index; DBP: diastolic blood pressure; HDL: high-density lipoprotein; LDL: low-density lipoprotein; MPR: medicines possession ration; SBP: systolic blood pressure.

* The MPR calculates the percentage of time a patient has access to medicines. The number of doses that a patient obtained over a period of time is divided by the number of doses that should have been obtained.



IMPROVING ADHERENCE – AN ONGOING PROCESS

- **IT IS IMPORTANT THAT IMPROVING ADHERENCE IS NOT SEEN AS A ONE-OFF INTERVENTION**
- **CONTINUOUS NEED TO EVALUATE A PATIENT'S PERSPECTIVE AND ADDRESS ISSUES AS THEY ARISE**
- **AN ADHERENT PATIENT TODAY MAY BECOME LESS ADHERENT IN THE FUTURE**
- **ALSO A PATIENT CAN CHOOSE NOT TO ADHERE TO ONE MEDICINE'S REGIMEN WHILE ADHERING TO ANOTHER**

FROM ADHERENCE TO CONCORDANCE

MEETING THE NEEDS OF PATIENTS

- **AS PATIENT NON-ADHERENCE IS A MAJOR ISSUE, IT HAS BEEN SUGGESTED THAT A NEW APPROACH BE TRIED TO IMPROVE PATIENT OUTCOMES – IT HAS BEEN TERMED CONCORDANCE – INVOLVING PATIENTS IN DECISIONS ABOUT PRESCRIBED MEDICINES**
- **CONCORDANCE REQUIRES OPEN AND HONEST DISCUSSION BETWEEN DOCTOR AND PATIENT, SO THAT THEY COME TO AN AGREEMENT ABOUT THE MOST APPROPRIATE TREATMENT.**



FROM ADHERENCE TO CONCORDANCE

- **CONCEPT OF CONCORDANCE SUGGESTS THAT DOCTOR AND PATIENT FIND AREAS OF HEALTH BELIEFS THAT ARE SHARED AND THEN BUILD ON THESE RATHER THAN DOCTOR TRYING TO IMPOSE HIS/HER VIEWS ON THE PATIENT. A SORT OF CONTRACT IS ESTABLISHED WHERE BOTH PARTIES ARE AGREEABLE.**
- **THE FINAL AGREEMENT PROBABLY REQUIRES CONCESSIONS ON BOTH SIDES WITH THE PATIENT HAVING TO TAKE MORE MEDICATION THAN WHAT HE WANTED AND THE DOCTOR HAVING TO ACCEPT THAT THE PATIENT IS TAKING, AT LEAST INITIALLY, LESS THAN WHAT MAY BE CONSIDERED MEDICALLY IDEAL.**



MEDICINES OPTIMISATION

- **THE NEW “BUZZ WORD”.**
- **MEDICINES OPTIMISATION IS ABOUT ENSURING PATIENTS GET THE BEST POSSIBLE HEALTH OUTCOMES FROM THEIR MEDICINES.**
- **IT IS DEFINED AS THE PROCESS BY WHICH HEALTHCARE PROFESSIONALS ENGAGE WITH INDIVIDUAL PATIENTS TO UNDERSTAND THEIR VIEWS, OPINIONS AND BELIEFS AND TO SHARE THEIR CLINICAL AND MEDICINES KNOWLEDGE SO THAT THE MOST APPROPRIATE EVIDENCE BASED CARE FOR EACH INDIVIDUAL CAN BE AGREED AND WHERE APPROPRIATE, TO COMMUNICATE THIS WITH OTHER HEALTHCARE PROFESSIONALS.**

KEY ELEMENTS OF MEDICINE OPTIMISATION

KEY ELEMENTS OF MEDICINES OPTIMISATION ARE THAT IT:

- **IS PATIENT CENTRED**
- **MAKES A DIFFERENCE TO PATIENT'S OUTCOMES**
- **IS A PARTNERSHIP BETWEEN HEALTHCARE PROFESSIONAL AND PATIENT**
- **IS ABOUT LISTENING TO PATIENT'S VIEWS AND OPINIONS AND TO SUPPORT ADHERENCE**
- **IS THE APPLICATION OF CLINICAL AND PHARMACEUTICAL EXPERTISE**
- **PROVIDES A PERSONALISED MEDICATION REGIMEN FOR EACH PATIENT**

KEY ELEMENTS OF MEDICINE OPTIMISATION

- ENCOURAGES COMMUNICATION WITH OTHER HEALTHCARE PROFESSIONALS TO ENSURE CONTINUITY ACROSS CARE SETTINGS
- ENCOURAGES GOOD GOVERNANCE, INCLUDING SAFETY, QUALITY AND BETTER OUTCOMES.



MEDICINE OPTIMISATION

- **MEDICINES OPTIMISATION IS POISED TO TAKE A LEADING ROLE IN NHS PHARMACEUTICAL POLICY IN THE UK IN 2012/2013**
- **ADHERENCE, ACHIEVED THROUGH SERVICES SUCH AS MEDICINES USE REVIEWS (MURS) AND NEW MEDICINE SERVICE (NMS), IS NOW BEING SEEN AS A CORE OBJECTIVE**

MURs

- **MUR's – MEDICINES USE REVIEWS ARE CURRENTLY BEING DONE BY CERTIFIED PHARMACISTS IN THE UK**
- **IT ESTABLISHES A PICTURE OF MEDICINES USE BY A PATIENT AND SHOULD NORMALLY TAKE NOT MORE THAN 20 MINUTES**
- **IT HAS ALSO BEEN CALLED “PRESCRIPTION INTERVENTION”. THIS IS WHEN AN ISSUE IS RAISED DURING THE NORMAL DISPENSING PROCESS AND THROUGH TALKING IT TO THE PATIENT, THE NEED FOR AN MUR BECOMES APPARENT**
- **ESSENTIAL REQUIREMENTS: PHARMACIST, PREMISES (CONSULTATION AREA), CATEGORIES OF PATIENTS (TARGET GROUPS – HIGH RISK MEDICINES/RESPIRATORY DRUGS/PATIENTS DISCHARGED FROM HOSPITALS WHERE THERE HAS BEEN A CHANGE OF MEDICATION)**
- **CLOSE COLLABORATION BETWEEN GPS/PHARMACIST – SHARING OF INFORMATION**



MURs

- **MAY IDENTIFY NON-ADHERENCE**
- **IDENTIFY SIDE EFFECTS/DRUG INTERACTIONS**
- **IMPROVE PATIENT'S USE AND UNDERSTANDING OF DRUGS**
- **IMPROVE CLINICAL/COST EFFECTIVENESS OF DRUGS, THEREBY REDUCING WASTAGE**

PHARMACISTS ARE RENUMERATED A FIXED COST FOR EACH MUR PERFORMED

NMS (NEW MEDICINE SERVICE)

THE NEW MEDICINE SERVICE FOCUSES ON PATIENTS WITH LONG TERM CONDITIONS NEWLY PRESCRIBED A MEDICINE AND HAS THE FOLLOWING OBJECTIVES:

- **IMPROVE ADHERENCE**
- **REDUCE WASTAGE**
- **INCREASE REPORTING OF MEDICINE ADVERSE REACTIONS BY PHARMACISTS/PATIENTS**
- **INCREASE PATIENT ENGAGEMENT**
- **REDUCE HOSPITAL ADMISSIONS DUE TO ADVERSE EVENTS OF DRUGS**
- **IMPROVE HEALTH OUTCOMES**

NMS (NEW MEDICINE SERVICE)


FOCUS ON FIVE CLINICAL CONDITIONS

- 1) ASTHMA**
 - 2) COPD**
 - 3) TYPE 2 DIABETES**
 - 4) ANTIPLATELET/ANTICOAGULATION THERAPY**
 - 5) HYPERTENSION**
- PATIENTS IN ABOVE TARGET GROUPS OFFERED THE SERVICE WHEN THEY PRESENT WITH A PRESCRIPTION FOR A NEW MEDICINE IN PHARMACIES OR MAY BE REFERRED TO THE PHARMACIST BY A PRESCRIBER**

NMS (NEW MEDICINE SERVICE)

- **AFTER INITIAL ADVICE AND A LEAFLET ON THE SERVICE, PATIENTS ARE INVITED TO RETURN AFTER 7-14 DAYS. WITH PATIENT'S CONSENT, INFORMATION IS SHARED WITH THEIR GP.**
- **FOLLOW UP VISIT IN 14-21 DAYS AND THE PHARMACIST GIVES FURTHER ADVICE AND SUPPORT AND THE SERVICE ENDS. IF A PROBLEM IS IDENTIFIED, PATIENT IS REFERRED TO PRESCRIBER**

TIME LIMITED SERVICE UP TO MARCH 2013 .NMS WILL CONTINUE IF EVALUATION SHOWS DEMONSTRABLE VALUE TO NHS.



MEDECINE OPTIMISATION IS A NEW VISION FOR FURTHER IMPROVING PATIENT CARE, WITH THE PATIENT AT THE CENTRE. IT COULD BE EXPECTED THAT THIS VISION WILL GROW AND BE DEBATED/FINE TUNED OVER THE COMING YEARS FOR THE OPTIMAL CARE OF PATIENTS.



THANK YOU