INTERVENTION TYPES

GP EDUCATION
- Peer review / feedback
  - Guidelines + training
  - Issuing of guidelines
  - GP training

PROCESS CHANGE
- Specialist consultation prior to referral
  - Electronic referral
    - Designated appt slots / fast track clinic
    - Direct access to screening
    - Decision support tool
    - Waiting list review / watchful waiting

SYSTEM CHANGE
- Community provision of specialist services by GPS
- Outreach: community provision by specialists
  - Return of inappropriate referrals
  - Payment system
  - Referral management centre / triage system
- Additional primary care staff
- System of gatekeeping

PATIENT INTERVENTION
- Health information / education
- Patient concerns / satisfaction

SHORT TERM OUTCOMES

GP KNOWLEDGE
- Knowledge of patient responsiveness to treatment / suitability
- Knowledge of services / systems
- Training in condition
- Use or awareness of referral guidelines
- Use or awareness of quality indicators

GP ATTITUDES / BELIEFS
- Confidence in management
- Tolerance of uncertainty / risk
- Belief regarding peer opinion
- Perception of role
- Views of specialist service

GP REFERRAL BEHAVIOUR
- Optimal content of referral
  - Optimal timing of referral
  - Use of pre-referral testing

DOCTOR-PATIENT INTERACTION
- Optimal relationship
  - Shared decision-making
  - Appropriate response to patient pressure

PATIENT KNOWLEDGE
- Patient knowledge

PATIENT ATTITUDES / BELIEFS
- Patient wishes / patient pressure
  - Appropriate service usage

MODERATING AND MEDIATING FACTORS

GP FACTORS
- Previous experience
- Familiarity with service
- Satisfaction with specialists
- Emotional response to patient
- Years in practice
- Ethnicity / country trained
- Age
- Gender
- Awareness of own referral rate

PATIENT FACTORS
- Co-morbidity / complexity of condition
- Suitability for referral / likely benefit
- Clinical speciality / condition
- Social factors
  - Ethnicity
  - Age
  - Gender
  - Level of education
  - Self-reported health

SERVICE FACTORS
- GP burden / time
- Pressure / perceived waiting time
- Availability of specialist
  - Location of service
    - (rural / urban, local / far)
  - Size
  - Fundholding / ownership

REFERRER SATISFACTION
- Appropriate actioning of referral
- Stronger evidence (capital and underlined)
- Stronger evidence in opposing directions (capital)
- Weaker evidence (lower case and underlined)
- Conflicting evidence (lower case and no underline)
- A single study providing evidence (lighter shade)

PATIENT SATISFACTION
- Appropriateness / adequacy of referral (urgency / timing)
- Appropriateness / accuracy of referral (place / person)

DEMAND MANAGEMENT

OUTCOMES

Adequate information provided by referrer
- Referral rate
- Waiting time

IMPACT

Cost
- Attendance rate
- Referral rate

Note: the arrows indicate the direction of the pathway and do not imply causality