Expression of Interest (EOI)

Department of Community Medicine, Dr. Rajendra Prasad Government Medical College, Kangra, Himachal Pradesh invites an expression of interest for designing an “Interactive Software” under the project entitled “Effect of standard e-Management Guidelines to Improve Treatment Compliance among Patients with type-2 Diabetes Mellitus in Urban, Rural and Tribal of Himachal Pradesh” in the name of undersigned.

It is requested to quote the rate of the service as lowest as possible and which are to be supplied by you immediately on the order of this office. It is to be mentioned that the;

1. The application will be opened on the same day.
2. Unsealed applications will be rejected.
3. This office reserves the right to reject any application describing a required service, which is not according to the specification/description given below.
4. Quotations will be valid up to three years.
5. The invitee of EOI will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

Eligibility:

1. The applicant should have experience in delivering the software designing and solutions in health care sector.
2. The person or agency is not be barred by any government agency or no complaint should be pending with government or its agencies.
3. In case, a company is applying, then it shall be of Indian origin, and registered as per the Indian companies act 1956.
4. The preference shall be given to company/individual based close to Dr. Rajendra Prasad Government Medical College, Kangra, Himachal Pradesh.
5. The software designing is to be completed in a stipulated time in the planning workshop at to Dr. Rajendra Prasad Government Medical College, Kangra, Himachal Pradesh.
6. The bidder must have its own developed integrated software solution which can be customized as per the research project requirements.

Project Brief:
The project demands;

1. An android and internet supported designing of Electronic Medical Record (EMR), that shall be operated in a hand held tablet devise of any make and company.
2. EMR shall include about 20-25 patient specific information, like name, age, gender, phone number, Body Mass Index (BMI), phone details, laboratory investigations (blood sugar and cholesterol etc) in terms of the variables.
3. A software for a decision support system (DCS) for management of patient with type-2 diabetes mellitus (DM), based on the information entered in the EMR. (Annexure)
4. Ascertaining the method of interaction between EMR (mainly mobile phone of the patient and their family members) and DCS, so that the DCS based messaging system can be established with the patient and the family members.
Selection Procedure:

1. Interested companies/individual may also carry out the required study of the requirements, at their own cost, based on the EMR and DCS.
2. The firm/person shall submit Technical and Financial justification.
3. The proposal shall be evaluated by an Evaluation Committee for short listing, will include group of investigators for this project.
4. The financial proposals shall be submitted as per the format along with the proposal in a sealed cover.
5. An Evaluation committee shall evaluate the technical proposals and shortlist competent firms/individual for further processing
6. Financial proposals of such shortlisted firms/individual only shall be considered further contract discussions

The expression of interest (EOI) shall be posted or delivered in person to the undersigned not later than 10\textsuperscript{th} March 2015 up to 5:00 PM.

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Assistant Professor-cum-Principal Investigator,
Department of Community Medicine,
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Annexure: The basic Decision Support System (DCS) for management of type-2 Diabetes Mellitus (DM), Dr. Rajendra Prasad Government Medical College, Kangra, Himachal Pradesh.

Known case of Diabetes mellitus (Code: Yes=1)

OR

Symptomatic like polyuria (Code: Yes=1) and polydipsia (Code: Yes=1)

OR

Asymptomatic individuals with any one of the following:

- Age $\geq 30$ years;
- BMI $\geq 23$;
- Waist Hip ratio: $>0.90$ (men) $>0.85$ (women);
- History of baby birth $\geq 3.5$;
- Hypertension $>140/90$;
- Cholesterol $>180$;
- HDL $>45$;
- LDL $>100$;
- TG $>150$;
- Family History of Diabetes (Code: Yes=1).

Assess with Fasting Blood Glucose (ALERT in EMR)

110-126 mg/dl

> 126 mg/dl (ALERT in EMR)

OGTT

140-200

>200 (ALERT in EMR)

Diabetes Management (ALERT in EMR)
Bulk Messaging to patient and its family member every month

Message 1: Dietary
- 60% of food shall be in the form of cereals, mixed coarse grains, whole pulses, salads, and soybeans
- 15% of food shall be in the form of Vegetables, low fat milk and its products, fish and lean meat
- 5% of food shall be in the form of ghee and butter
- 20.0% of food shall be in the form of mixture of ground nut, sesame, cotton seed, rice bran and safflower and Soyabean, mustard, canola oil
- Eat 1-2 serving of fruits in a day
- Eat salt less than 6 gram in a day
- Do not have
  - Sugar, jaggery and sweets.
  - Pickles, papad, chatni, salted processed foods
  - Hydrogentaed vegetable oils (transfatty acid)
  - Processed refined food like Maida based products
  - Roots and Tubers
  - Alcohol and Tobacco

Message 2: Physical Activity
- Brisk walk (or equivalent): 30-60 minutes/day
- Yoga:
  - Asana (Postures)
  - Pranayama (involving breath)
  - Dhyana (meditation)
  - Bhavana (visualization, also part of dhyana)

Bulk Messaging to treating physician every month

Treatment with Medicines

Non Obese: BMI 18.5 – 27.0 Kg /m²
Glipizide: 2.5-20 mg/day; 1-2 times in a day OR
Glimipride: 1-8 mg/day: 1 time in a day OR
Glipizide XL: 5-20 mg/day; 1 time in a day OR
Glicilazide MR: 30-120 mg/day; 1 time in a day OR
If uncontrolled add;
Metformin: 250-2500 mg/day; 2-3 times in a day
If uncontrolled add;
Pioglitazone: 15-45 mg/day; 1 time in a day
If uncontrolled add;
Acarbose: 25-150 mg/day; 1-3 times in a day  

**Obese: BMI >27.0 kg/m^2**
Metformin: 250-2500 mg/day; 2-3 times in a day  
If uncontrolled add;
Glipizide: 2.5-20 mg/day; 1-2 times in a day  
Glimipride: 1-8 mg/day; 1 time in a day  
Glipizide XL: 5-20 mg/day; 1 time in a day  
Glicilazide MR: 30-120 mg/day; 1 time in a day  
If uncontrolled add;
Pioglitazone: 15-45 mg/day; 1 time in a day  
If uncontrolled add;
Acarbose: 25-150 mg/day; 1-3 times in a day

**Lean: BMI < 18.5 kg/m^2**
Glipizide: 2.5-20 mg/day; 1-2 times in a day  
Glimipride: 1-8 mg/day; 1 time in a day  
Glipizide XL: 5-20 mg/day; 1 time in a day  
Glicilazide MR: 30-120 mg/day; 1 time in a day  
If uncontrolled add;
Pioglitazone: 15-45 mg/day; 1 time in a day

If still uncontrolled (> 3 Oral drugs) then add Insulin
Starting with: 0.2 unit/kg/day
Biphasic Insulin: Before breakfast and Dinner