Appendix 2: App design and features

App at nurse interface:

1. Log in page

| 4G iil | 11:55 | 🕒 4G 97% 💷 |
|----------|-------|------------------|
| 3 | UHRID | ауа |
| Username | | |
| Password | | |
| | | Forgot Password? |
| | LOGIN | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | V1.0.17 |

2. Menu

| 4G 11 | (¹ .) 11:07 | 🍽 4G 89% 💶 |
|-----------|---------------------------|---|
| Men | u | E Pat |
| | Patient List | F |
| | Rx Medication List | Q Search |
| | Review Training Item/ FAQ | Name : Age : |
| • | Edit Profile | Gender : Mobile : |
| \ominus | Logout | |
| | | Name : Age : Gender : Mobile : |
| | | Name : Age : Gender : Mobile : |
| | V1.0.17 | Name : 7 Age : |

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3. Add new patient

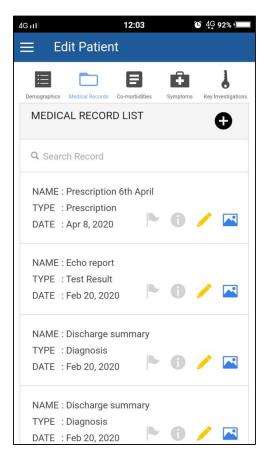
| G 111 ((¹)) | 11:13 | 🕒 4G 86% 🔳 |
|--------------------------|-----------------------|------------|
| E Add N | lew Patient | |
| DEMOGRA | PHICS | |
| Hospital/IP Nu | mber* Enter Hospital, | /IP Number |
| Trial Unique Id | Enter Trial Uniqu | e Id |
| First Name* | Enter First Name | Λ 💊 |
| Last Name | Enter Last Name | |
| Date of Birth* | 11/22/2020 | |
| Gender * | | - |
| Height | Centimeter | cm 👻 |
| Mobile Number | * Enter Mobile Nu | mber |
| Email | Enter Email | |
| Contact De | tails | |
| Address Line 1 | Enten Aslahren | |

4. Patient detailed profile

| 4G 111 ((¹)) | 11:14 | 🕒 4G 85% 🔲 |
|---------------------------|---------------------|-----------------------------|
| 📃 🛛 Edit Pa | atient | |
| | | Symptoms Key Investigations |
| DEMOGRAP | HICS | |
| Hospital/IP Num | nber* Enter Hospita | al/IP Number |
| Trial Unique Id* | Enter Trial Unio | ue Id |
| First Name* | Enter First Nam | ne |
| Last Name | Enter Last Nam | ne |
| Date of Birth* | | |
| Gender * | | Male 💌 |
| Height | entimeter | cm 🔻 |
| Mobile Number | Enter Mobile N | umber |
| Email | Enter Email | |

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5. Patient medical records

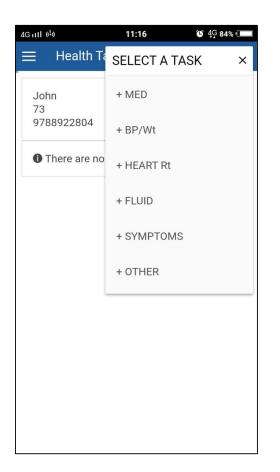


6. To create medication list

| 4G III (¹)) 11 | :14 C 4G 85% |
|-----------------------------|--------------|
| | TION TYPE |
| Class | v |
| Generic Name | Ţ |
| Brand Name | Ŧ |
| TAKE PICTURE | CHOOSE IMAGE |
| SAVE | BACK |
| | |
| | |
| | |
| | |

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7. Assigning task



8. Assign medication reminder after filling medication details

| ւGոll (^լ .) 11:16 ն | | | 🕒 4G 84% 🔳 | | |
|-----------------------------------|-------------------------------|--|------------|--|--|
| \equiv Add | | | | | |
| Class * | | | • | | |
| G | Generic Name * | | | | |
| Brand Nar | me | | ~ | | |
| Dose (mg) * | | | | | |
| Start Date * 11/22/2020 | | | | | |
| End Date | | | | | |
| | | | | | |
| Medication Administration Times * | | | * | | |
| 1 per DAY | 1 per DAY 2 per DAY 3 per DAY | | | | |
| Morning [| 8am] | | | | |
| Noon [10r | | | | | |

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9. Assign BP/weight task

| 4G 111 ((¹)) | 11:17 | 🕒 4G 84% 💶 |
|---------------------------|----------------------|-------------------|
| ≡ Add | BP/Weight | |
| ADD BP E | VENT | |
| End Date | | |
| SYSTOLIC A | ALERT RANGE WITH SYM | IPTOMS |
| DEFAULT | RANGE - (mmHg) | |
| Min —— | -0 | |
| Max — | -0 | |
| SYSTOLIC A | ALERT RANGE WITHOUT | SYMPTOMS |
| DEFAULT | RANGE - (mmHg) | |
| Min —— | | |
| Max — | -0 | |
| DIASTOLIC | ALERT RANGE WITHOUT | F SYMPTOMS |

10. Assign fluid intake task

| 4G rill (태) | 11:17 | 🕑 4º 84% 💷 |
|---------------|----------|------------|
| 📃 🛛 Add Fluid | d Intake | |
| | | |
| End Date | | |
| | | |
| | | |
| Save | | Back |
| | | |
| | | |
| | | |
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11. Assign heart rate task

| 4G 111 ((¹)) | 11:17 | 🕒 4G 84% 💶 |
|---------------------------|---------------|---------------|
| \equiv Add He | art Rate | |
| End Date | | |
| ALERT RANG | E WITH SYMPTO | SWC |
| DEFAULT RAN | IGE - (BPM) | |
| Min |)(| |
| Max —— |)— | |
| ALERT RANG | E WITHOUT SYN | MPTOMS |
| DEFAULT RAN | IGE - (BPM) | |
| Min |) | |
| Max — | | |
| Save | | Back |
| | | |

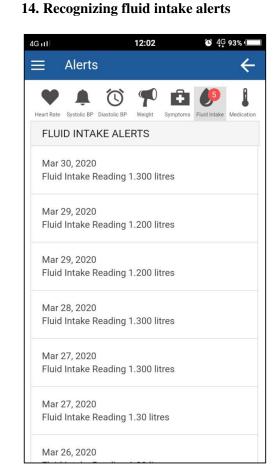
| 4G 111 (¹) | 11:17 | | 🕒 4G 84% 🔳 |
|-------------------------|-------------------------------------|--------------|------------|
| \equiv Ad | d Symptoms | | |
| | | | |
| End Dat | e | | |
| ADD SY | MPTOMS | Ch | eck All |
| | Have you felt mo since yesterday | | f breath |
| | Have you notice since yesterday | | elling |
| | Have you had di 24 hours ? | zziness in 1 | the last |
| ADD SY | MPTOMS GP2 | | |
| | Did you wake up | | |

12. Assign symptom/sign monitoring task

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| al | 12:04 | | © 49 | 92% 💻 |
|--------------------------------------|-------|----------|--------------|------------------------|
| Alerts | | | | ÷ |
| eart Rate Systolic BP Diastolic BP | | Symptoms | Fluid Intake | I Medication |
| DIASTOLIC BP ALE | ERTS | | | |
| Apr 7, 2020 Diastolic BP Reading | 58 | | | |
| Apr 2, 2020 Diastolic BP Reading | 58 | | | |
| Apr 1, 2020 Diastolic BP Reading | 109 | | | |
| Mar 28, 2020 Diastolic BP Reading | 58 | | | |
| Mar 18, 2020 Diastolic BP Reading | 57 | | | |
| Mar 16, 2020 Diastolic BP Reading | 54 | | | |
| Mar 15, 2020 | | | | |

13. Recognizing alerts, Diastolic blood pressure



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15. Recognizing symptom/sign alert

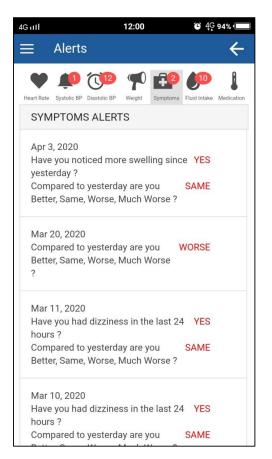


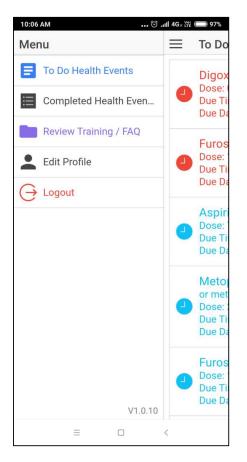
Table 1: Alerts reported by patients/ caregivers:

| Alerts reported, N = 62 | No. of alerts n (%) | | |
|--------------------------|---------------------|--|--|
| Fluid intake | 36 (58.1) | | |
| Variance in diastolic BP | 12 (19.4) | | |
| Symptom worsening | 10 (16.1) | | |
| Variance in systolic BP | 4 (6.5) | | |

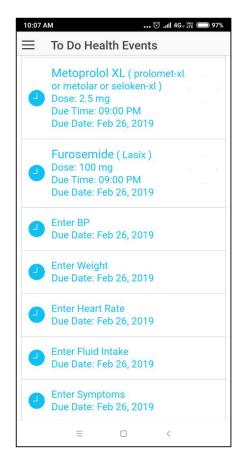
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App at patient interface:

1. Menu



2. To do health events



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| 10:07 AM | | ••• ૽ ⊿ıtil 4G⊮ | Ye 🔘 97% |
|----------|---|-----------------|----------|
| Ξ Ta | ake Medicat | ion | |
| Date | 02/26 | /2019 | |
| Time | 10:07 | AM | |
| | Name: Lasix (F Dose : 100 mg Time : 08:00 AM | | |
| | SAVE | BACK | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | = 0 |) < | |

3. Medication taking & acknowledgement

4. Completing task of entering

| 10:08 AM | •• | • 🗇 .till 4G # 🛄 🔘 96% |
|-----------------|---------------|------------------------|
| \equiv Period | ic Input Para | ameters |
| Date | 02/26/2019 | |
| Time | 10:07 AM | |
| Blood Press | ure | |
| Systolic (mr | n Hg) | |
| 0 | | 0 |
| Diastolic (m | m Hg) | |
| 0 | | 0 |
| SAVE | | BACK |
| | | |
| | | |
| | | |
| | | |
| = | | < |

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| 10:08 AM | | ••• 🗇 .11 4G LTE 🔵 96% |
|------------|--------------|-----------------------------|
| Period | dic Input Pa | arameters |
| Date | 02/26/20 | 19 |
| Time | 10:08 AN | 1 |
| Weight | | |
| Enter Weig | ht (Kgs) 82 | |
| BMI | 29.05 | OVERWEIGHT |
| | | |
| SAV | | BACK |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| = | | < |
| = | - 0 | 1 |

5. Completing task on entering weight

6. Completing task on heart rate

| 10:08 AM | | 🗇 .ııll 4G # LTE | 96% |
|----------|-------------|------------------|-----|
| ≡ He | art Rate Re | cord | |
| Date | 02/26 | /2019 | |
| Time | 10:08 | AM | |
| Heart R | ate (BPM) | | |
| | -0- | 207 | |
| s | AVE | BACK | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | = 0 | | |

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| 7. | Completing | task | on | entering | fluid | intake |
|----|------------|------|----|----------|-------|--------|
|----|------------|------|----|----------|-------|--------|

| 10:08 AM | | | 河 .ııll 4G 🖓 🖓 | 96% |
|----------|--------------|---------|----------------|-----|
| ≡ Fl | uid Intak | e Reco | ord | |
| Date | 0 | 2/26/20 | 19 | |
| Time | 1 | 0:08 AN | 1 | |
| Fluid Ir | ntake (litre | s) | | |
| | 0— | | 4 | |
| | SAVE | | BACK | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | = | | < | |

8. Reporting symptoms/signs task

| Date | 02 | 2/26/2019 | | |
|--|-----------|--------------|-----------|--------|
| Time | 10 | :08 AM | | |
| SYMPTON | /IS GP1 | | | |
| Have you fe since yeste | | short of bre | ath | |
| Have you n since yeste | | ore swellin | g | |
| Have you had dizziness in the last day ? | | | | |
| SYMPTON | /IS GP2 | | | |
| Did you wal last night ? | ke up sho | ort of breat | h | |
| Did you slee with a pillov | 1.5.1 | | ed up | |
| Compared Much Wors | | day are you | Better, \ | Worse, |

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9. Completed health events

| ≡ | مم من الله عن الله عن المالي من المالي من |
|---|---|
| ~ | Digoxin (Lanoxin) 08:00 AM, Feb 26, 2019 |
| ~ | Furosemide (Lasix) 08:00 AM, Feb 26, 2019 |
| ~ | BP Reading 200/100 Feb 26, 2019 |
| ~ | Weight Reading 82 KG Feb 26, 2019 |
| ~ | Symptoms Feb 26, 2019 |
| | |
| | |
| | |
| | ≡ □ < |

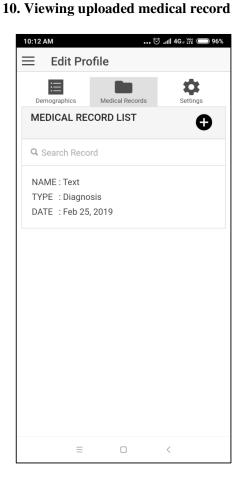


Table 2: App issues at patient/caregiver interface:

| Technological issues at patient interface | No. of issues |
|---|---------------|
| App download issue | 3 |
| Log in issue | 1 |
| Medication swipe issue | 1 |
| Translations missing (drug names and symptom questions) | 1 |
| Non-reflection of medication/ task lists | 3 |
| Total | 9 |

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