

```

monitor Barber_Shop {
    int barber = 0, chair = 0, open = 0;
    cond barber_available;    # signaled when barber > 0
    cond chair_occupied;     # signaled when chair > 0
    cond door_open;         # signaled when open > 0
    cond customer_left;     # signaled when open == 0

    procedure get_haircut() {
        while (barber == 0) wait(barber_available);
        barber = barber - 1;
        chair = chair + 1; signal(chair_occupied);
        while (open == 0) wait(door_open);
        open = open - 1; signal(customer_left);
    }

    procedure get_next_customer() {
        barber = barber + 1; signal(barber_available);
        while (chair == 0) wait(chair_occupied);
        chair = chair - 1;
    }

    procedure finished_cut() {
        open = open + 1; signal(door_open);
        while (open > 0) wait(customer_left);
    }
}

```

Figure 5.10 Sleeping barber monitor.